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A SUMMARY OF CURRENT OBSERVATIONS BETWEEN ICELAND AND NORWAY.(U)
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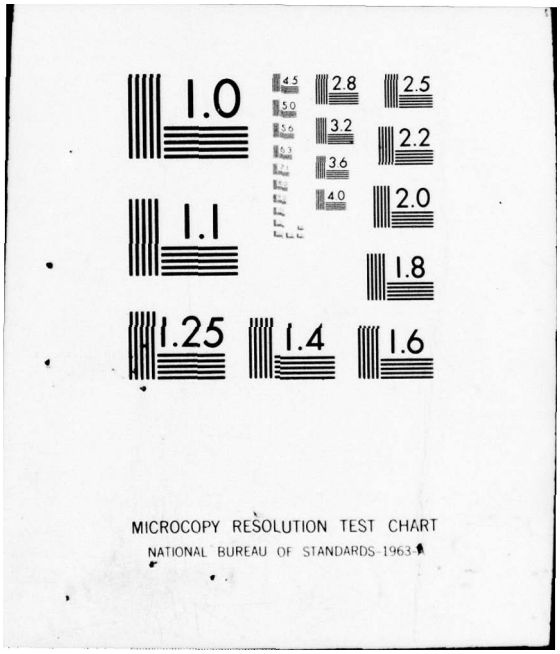
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TECHNICAL NOTE

A SUMMARY OF CURRENT OBSERVATIONS BETWEEN ICELAND AND NORWAY

Stephen W. Dorey

May 1975

NAVAL OCEANOGRAPHIC OFFICE
WASHINGTON, D.C. 20373

ABSTRACT

This report is a summary of direct current measurements between Iceland and Norway. The data summarized were obtained from tables published by Mosby in 1962 and 1963, from the International Iceland-Faeroe Ridge Expedition in 1960 as reported by Joseph in 1967, and from three arrays implanted on the Iceland-Faeroe Ridge by the Naval Ordnance Laboratory in 1972. An attempt is made to follow the major currents through the region.

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The data summarized are from tables published by Mosby in 1962 and 1963, from the Iceland-Faeroe Ridge Expedition of 1960 and from three arrays planted by the Naval Ordnance Laboratory in 1972. Current velocity, direction and depth are given.

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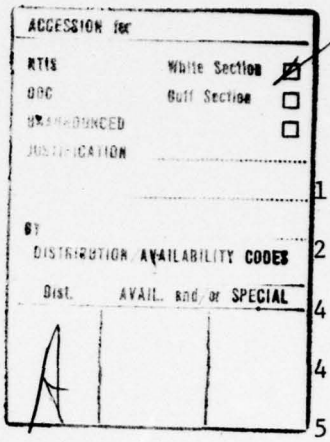

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I. INTRODUCTION

This report is a summary of direct current measurements between Iceland and Norway. The data presented were obtained from tables of observations in the Faeroe-Shetland Channel, the southern Norwegian Sea and the northern North Sea published by Mosby in 1962 and 1963, from a report of the 1960 International Iceland-Faeroe Ridge Expedition current observations by Joseph in 1967, and from three arrays implanted on the Iceland-Faeroe Ridge by the U. S. Naval Ordnance Laboratory (NOL) in 1972. An attempt is made to follow the major currents through the region. A current meter location chart is presented in Figure 1.

The data contained in Mosby's tables were collected over two widely separated time periods. During the first of these periods, in the 1920's, the observations were made by Helland-Hansen, Ekman, and Sund (Mosby, 1963). During the early 1960's observations were made by the NATO Subcommittee on Oceanographic Research (Mosby, 1963). The early data were collected on brief stations lasting from a few hours to three days. The later series of observations were generally longer, some lasting as much as six days. All of the observations are of too brief a duration to make a reliable long term statement about the current regime in the region (Webster, 1969). However, the observations were made at many depths and show continuity in the water column and provide a crude basis for quantification of velocity and direction. This type of assessment is not possible using dynamic topography calculations. The quality of the data appears to be good.

The data presented in the Mosby tables were collected by a variety of instruments. The Ekman current meter and the Ekman repeating current meter were the most frequently used. Observations were also made with paddlewheel current meters and Hytech current recorders (Mosby, 1962).

The following description of the NOL data was obtained from an unpublished manuscript prepared by G. F. Page at NOL. The arrays were set on the Iceland-Faeroe Ridge and recorded data for a period of over two months during late summer in 1972. Each array consisted of one Integrated Circuit Current Meter, developed at NOL, placed 3.7 meters above the bottom. They recorded data in bursts at two hour intervals. Each burst consisted of 62 separate samples taken at five second intervals. In the data processing stage these bursts are averaged to give one reading every two hours. The data obtained on arrays one and four are of good quality, while that on array two is described as fair. Array three provided no data. The data as shown in this report is derived from a scalar mean velocity and a computed vectorial mean direction of each burst.

During the International Iceland-Faeroe Ridge Expedition of 1960 current data were collected at ten sites on the Iceland-Faeroe Ridge (Joseph, 1967). These stations are denoted with a "J" prefix of the station number on the station location chart (Figure 1). The techniques of data collection varied. In all, seven different current meters were used, which are described in Joseph's report. The residual currents are included with vectorial means illustrated in Figure 4. Maximum velocity observations are illustrated in Figure 7.

The bathymetry contours shown in the charts are a composite of two charts. The bathymetry for the region between the Faeroes and Iceland is from a chart by Fleischer (1971) and the area east of the Faeroes from NATO publication SM-47.

II. DISCUSSION

There are three major surface currents within this region: the Norwegian Current, the Norwegian Coastal Current, and the East Icelandic Arctic Current. These currents and associated eddies make this region between the North Atlantic and the Norwegian basins extremely complex. While much has been done using dynamic topography and geostrophic calculations to determine the flow, direct current measurements are scarce. The largest number of direct observations appear to be those by Helland-Hansen, Ekman, Sund, and the NATO Subcommittee on Oceanographic Research (Mosby, 1962, 1963). A literature search indicates that no scientific papers were ever published on these data until Mosby published them in tabular form in 1962 and 1963. These data have been keypunched and stored on magnetic tape. The data presented in this report are prepared from computer manipulation of these observations.

Norwegian Current

The Norwegian Current is an extension of the North Atlantic Current. The main current is a strong, well defined, northeasterly flow about 35 km wide entering the Norwegian Sea through the eastern side of the Faeroe-Shetland Channel. Scalar mean velocities of over 50 cm/sec were observed in the core. Vectorial mean velocities of 45 to 50 cm/sec were found in the top 100 meters at stations 27 and 33 (Figure 8). The core of this current flows northeasterly through stations 21 and 33 (Figures 8 and 9). This current attains very high velocities (110 cm/sec) and extends to a depth of approximately 550 meters (Figures 12 and 13). Once in the Norwegian Sea the current follows the bathymetric contours of the continental slope over to the Norwegian coast where it joins the Norwegian Coastal Current and continues north-northeasterly. The velocities observed are somewhat higher than the 30 cm/sec surface current reported by Sverdrup et al. (1942) and Fairbridge (1966). A

statistical analysis of the observations show currents as high as 90 cm/sec in the center of the stream 95 percent of the time.

As the eastern edge of the current approaches the Shetland Islands it slows and veers to the southeast, bifurcating on the islands and entering the North Sea between the Shetland Islands and the Orkney Islands, where it again swings northeasterly and rejoins the main current at approximately 62°N, 2°E.

The western boundary of the Norwegian Current in the Faeroe-Shetland Channel is a nearly vertical wall as it encounters what is evidently the East Icelandic Arctic Current flowing southwesterly with almost equal strength. This boundary is evident between stations 28 and 32 (Figure 8), and between stations 43 and 21 (Figure 9).

Norwegian Coastal Current

The Norwegian Coastal Current is first recognized as outflow from the North Sea. Following the coast of Norway, it flows in a north-northwesterly direction through a shallow channel into the Norwegian Sea. At latitude 62°30'N it joins the Norwegian Current and the combined current flows northeast along the Norwegian continental slope.

The main stream of the Norwegian Coastal Current leaves the North Sea with a mean velocity of approximately 40 cm/sec in its core. The core hugs the Norwegian Coast while the general flow between the Shetland Islands and Norway is also northerly but at a much reduced velocity (Figure 10). The current is uniform in velocity and direction from the surface to the maximum observation depth of 200 meters. Observations of the combined current at station 3, 64°N, show the current still maintains a mean velocity of nearly 40 cm/sec to a depth of 200 meters and gradually slows to 16 cm/sec at 970 meters (Figure 11). Direction remains relatively constant ($\pm$ 25°) from the surface to the deepest observation.

East Icelandic Arctic Current

The East Icelandic Arctic Current as described by Sverdrup et al. (1942) is a branch of the East Greenland Current which has split off northwest of Iceland and flows easterly, forming part of a counter-clockwise circulation in the Norwegian Sea.

Based on the findings of Joseph (1967), the NOL arrays and the Mosby tables (1962, 1963), it appears the current bifurcates once it has passed Iceland. One branch flows southwesterly over the western end of the Iceland-Faeroe Ridge. The other branch flows around the eastern terminus of the ridge and out the Faeroe-Shetland Channel. Swallow (1957), using his neutrally-buoyant floats provides additional evidence of this flow through the channel. Placing a float

in the center of the channel at a depth of 840 meters, he observed a mean current of 13 cm/sec flowing 250° (west-southwest). A subsequent float placed in the same location at a depth of 340 meters delineated a mean current of 22 cm/sec flowing 359°. These observations pick-up the opposing Norwegian and East Icelandic Arctic currents noted in Mosby's data, however, the western boundary of the Norwegian Current appears to be displaced approximately 20 km to the west at the time of Swallow's observations.

On each occasion of direct current measurements (1923, 1924, 1957, 1961, and 1962) the current on the western side of the channel and at depths below 600 meters was found to be flowing south to west-southwesterly out of the Norwegian Sea, indicating a steady flow rather than an intermittent flow as suggested by Cooper (1955). This current takes a southwesterly course out of the Faeroe-Shetland Channel. The surface current overflows the Wyville Thomson Ridge and continues in a southwesterly direction. Below the ridge crest, it is deflected to the right through the Faeroe Bank Channel, traversing the south face of the Iceland-Faeroe Ridge, where it joins the overflow at the ridge's western end. This northwesterly flow traversing the ridge face is indicated by Steele (1961).

The near bottom data provided by Joseph (1967), Steele (1967), and the NOL arrays show no steady current either into or out of the Norwegian Sea over the central portion of the ridge. Observations indicate a stationary cyclonic eddy over the center (Figure 4). This is not inconsistent with the boluses of cold water that intermittently surge over the ridge into the North Atlantic basin. However boluses were not observed at the time direct current measurements were being made.

III. EXPLANATION OF DATA PRESENTATIONS

A. Current Observation Summaries

The current observation summary is an attempt to provide as complete a summary of a current meter observation as possible. The information contained in this summary is:

1. Numerical reference number chronologically assigned by author.

2. Date observations commenced.

3. Position.

4. Depth of all observations at a station expressed in meters.

*5. Minimum velocity expressed in cm/sec for each observation level.

*6. Maximum velocity expressed in cm/sec for each observation level.

*7. Scalar mean velocity - a simple mean of all velocity observations expressed in cm/sec.

8. Standard deviation of velocity expressed in cm/sec.

9. Vectorial mean direction - the vectorial mean direction was derived by reducing each observed vector to its north and east components using the formulas:

$$\sin(A) = v/c \quad \text{or} \quad v = c \sin(A)$$

$$\cos(A) = u/c \qquad u = c \cos(A)$$

where A is the direction of the vector, c is the magnitude of the vector, v is the east component, and u is the north component. The resulting components are then summed, divided by the number of observations and converted back to a vector, resulting in a mean direction for all observations.

10. Vectorial mean velocity - the vectorial mean velocity is derived in the same computations that result in the vectorial mean direction and produces a magnitude or mean flow expressed in cm/sec for all observations.

11. N-1 - the number of observations used to compute standard deviation.

12. A graph of the percent of time the current is at or below a given velocity. Where the number of observations were less than 20, no plot was made.

* NOL meters are filtered for erroneous values. All observations of zero velocity and in excess of the maximum value given are deleted from the summary.

B. Vector Plot

The vector plot (or wheat fields) is a graphic presentation of current vectors versus time. This form of presentation highlights the variability of a current with the passage of time. It is felt that this presents a clearer picture of the currents than a static current rose.

The bar graph to the left of the vector plot presents the distribution of velocity observations expressed in percent. The vertical scale is in percent and is ticked at 10% intervals. The horizontal scale represents a range of observed velocities; thus 0 represents the range $0 \leq X \leq 9$ cm/sec, 1 represents the range $10 \leq X \leq 19$ cm/sec, where X is a summation of all velocity observations in the range expressed in percent. The average or mean velocity given beneath the graph is the scalar mean velocity.

The vector plot itself is presented as current vectors plotted versus time. The direction north corresponds to the top of the page, east to the right, south to the bottom and west to the left of the page. A scale for vector magnitude is plotted at the left of the plot and is ticked at 5 cm/sec intervals ($\sim$0.1 knot). The base line is ticked at four hour intervals for the Mosby data and at twenty-four hour intervals for the NOL data.

IV. ACKNOWLEDGMENTS

I wish to express my appreciation to Mr. Edward C. Escowitz and Dr. Herbert C. Eppert, Jr. for allowing me the opportunity to put this report together. I also wish to thank Mr. Robert A. Peloquin along with Dr. Eppert and Mr. Escowitz for reviewing the final product.

REFERENCES

Cooper, L. H. N., 1955, Deep Water Movements in the North Atlantic as a Link Between Climatic Changes Around Iceland and Biological Productivity of the English Channel and Celtic Sea, Journal of Marine Research, Vol. 14, pp. 347-362.

Fairbridge, R. W., 1966, The Encyclopedia of Oceanography, pp. 307-309 and 552-556, Reinhold Publishing Corp., New York.

Fleischer, U., 1971, Gravity Surveys Over the Reykjanes Ridge and Between Iceland and the Faeroe Islands, Marine Geophysical Researches 1, pp. 314-327, D. Reidel Publishing Company, Dordrecht Holland.

Joseph, J., 1967, Current Measurements During the International Iceland-Faeroe Ridge Expedition, 30 May to 18 June 1960, Rapports Proces-Verbaux Des Reunions, Vol. 157, pp. 157-172, Copenhagen.

Mosby, H., 1962, Current Measurements in the Faeroe-Shetland Channel 1960 and 1961, Tables, pp. 1-173, NATO Subcommittee on Oceanographic Research, Bergen.

Mosby, H., 1963, Current Measurements in the Faeroe-Shetland Channel 1962, Tables, pp. 1-59, NATO Subcommittee on Oceanographic Research, Bergen.

Mosby, H., 1963, Current Measurements in the Norwegian Sea and the North Sea 1923, 1924, 1928, 1929, Tables, pp. 1-67, NATO Subcommittee on Oceanographic Research, Bergen.

Mosby, H., 1963, Current Measurements in the Faeroe-Shetland Channel 1963, Tables, pp. 1-18, NATO Subcommittee on Oceanographic Research, Bergen.

Page, G. F., 1973, Subsurface Currents in the Denmark, and Iceland-Faeroes Straits, Unpublished Manuscript, NOL.

Steele, J. H., 1961, Notes on the Deep Water Overflow Across the Iceland-Faeroe Ridge, Rapports Proces-Verbaux Des Reunion, Vol. 149, pp. 84-88, Copenhagen.

Steele, J. H., 1967, Current Measurements on the Iceland-Faeroe Ridge, Deep Sea Research, Vol. 14, pp. 469-473.

Sverdrup, H., Johnson, M., Fleming, R., 1942, The Oceans, Chapter XV, pp. 651-663, Prentice-Hall, Englewood Cliff, New Jersey.

Swallow, J. C., 1957, Some Further Deep Current Measurements Using Neutrally-Buoyant Floats, Deep Sea Research, Vol. 4, pp. 93-104, Pergamon Press Ltd., London.

Webster, F., 1969, On the Representativeness of Direct Deep-Sea Current Measurements, Progress in Oceanography, Sears ed., Vol. 5, pp. 3-15, Pergamon Press Ltd., London.

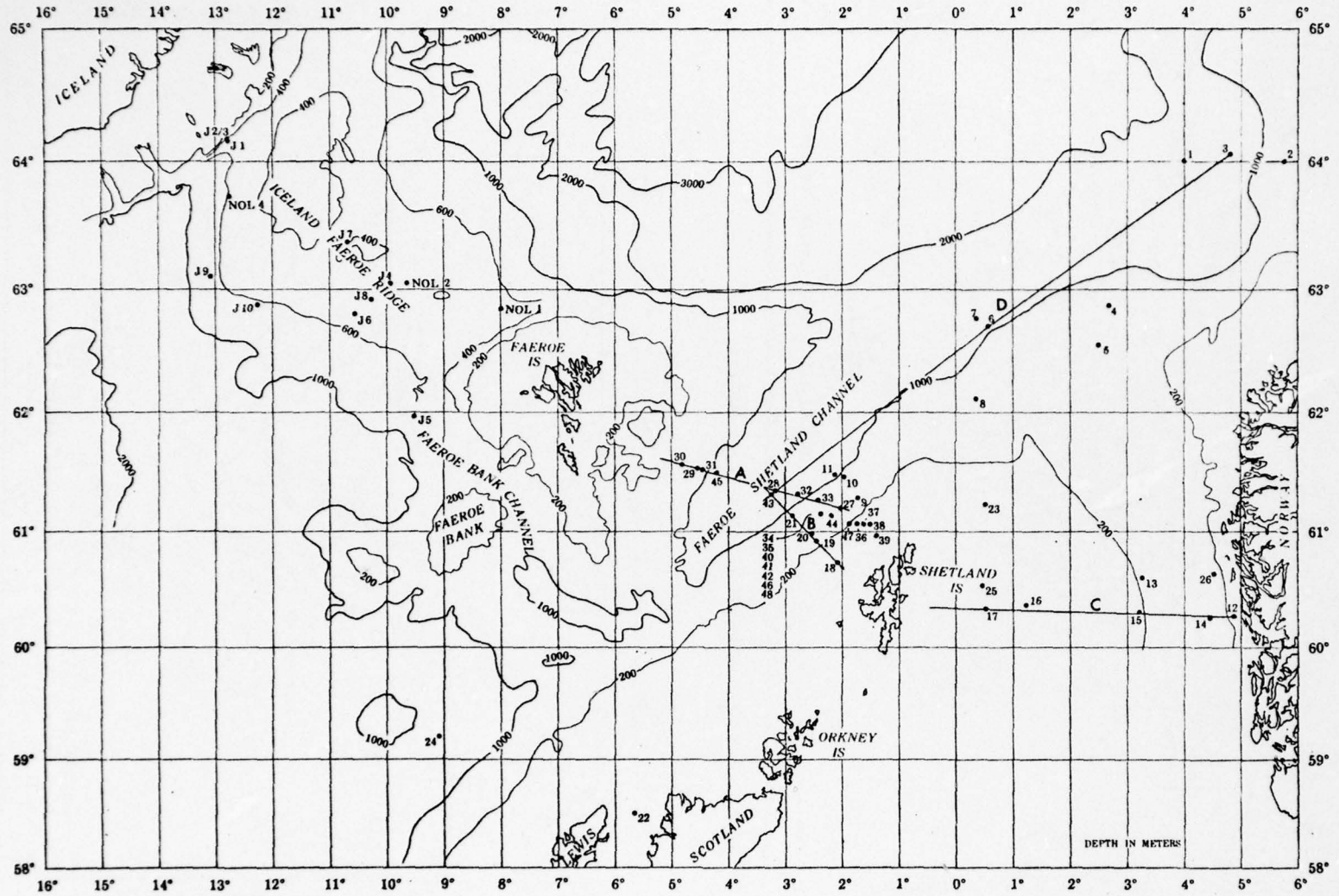


FIGURE 1 **CURRENT METER STATION LOCATION CHART**

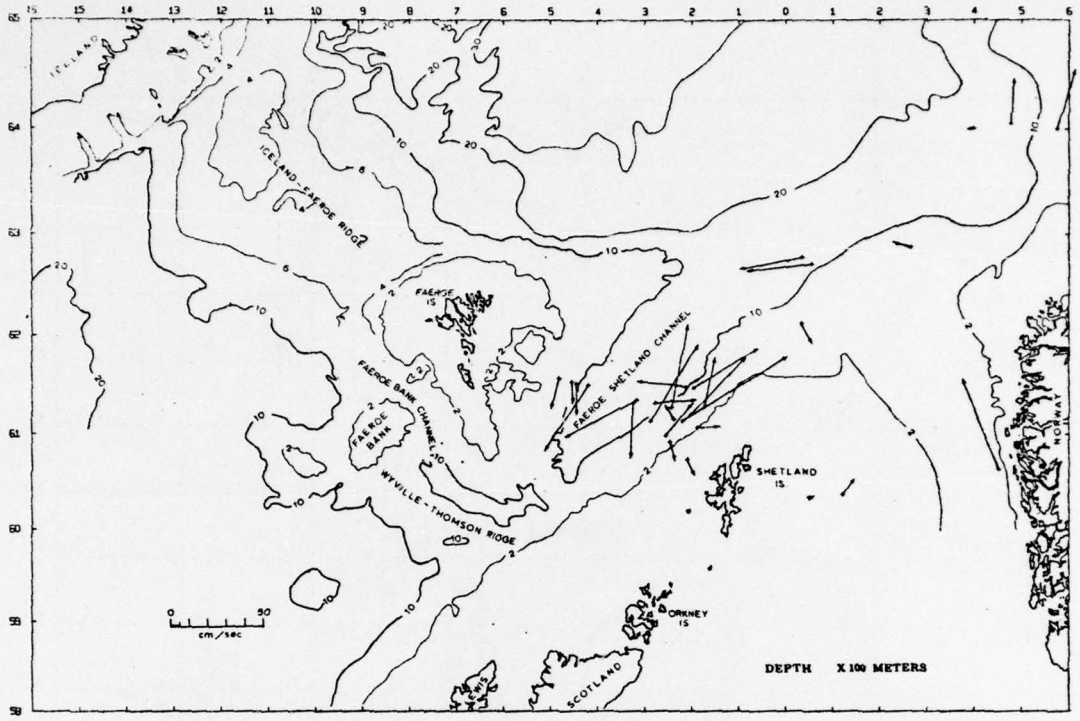
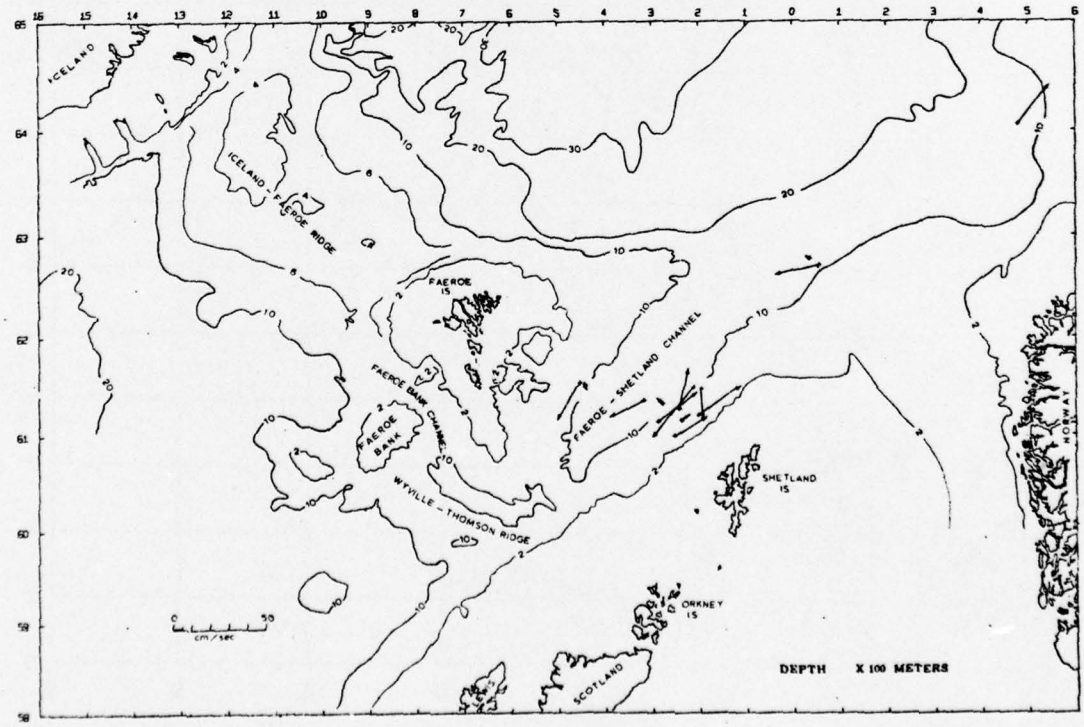


FIGURE 2 **MEAN CURRENT VECTORS AT 100 METERS**



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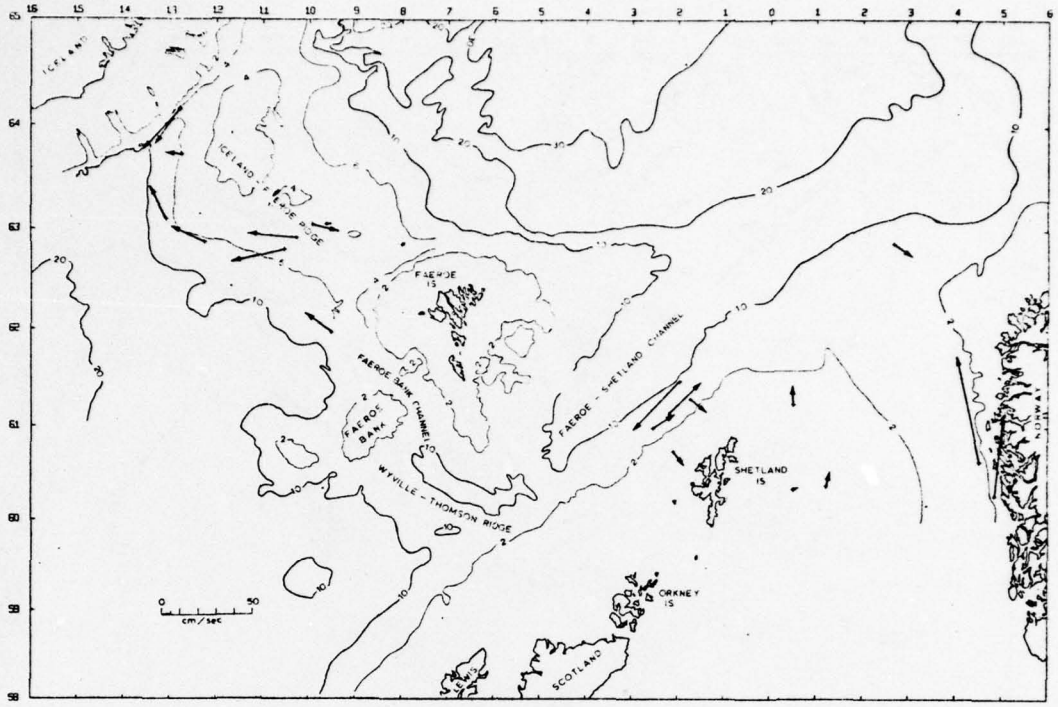


FIGURE 4 NEAR BOTTOM VECTORIAL MEAN VELOCITY VECTORS

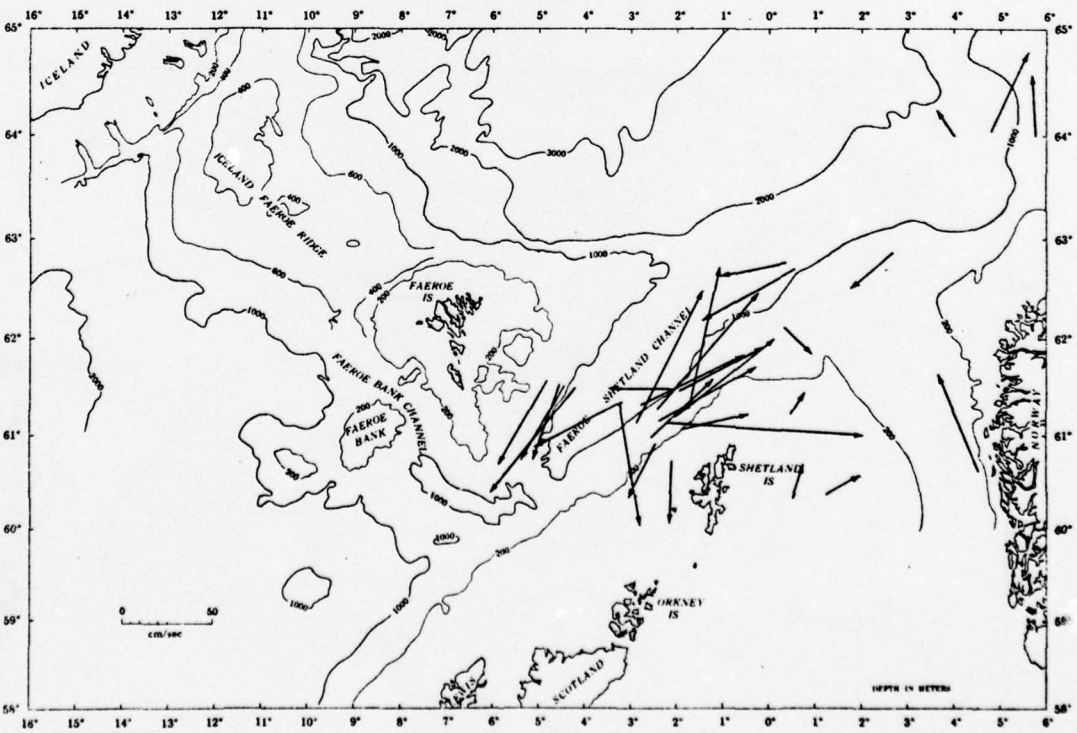
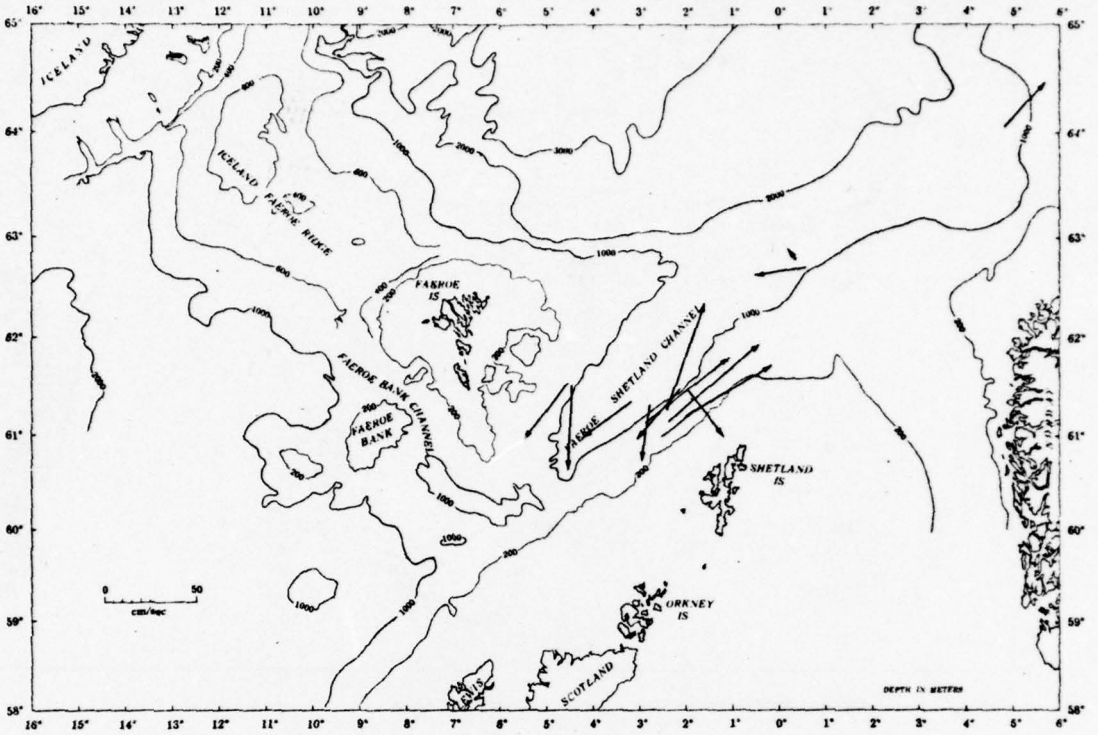


FIGURE 5 MAXIMUM VELOCITY VECTORS AT 100



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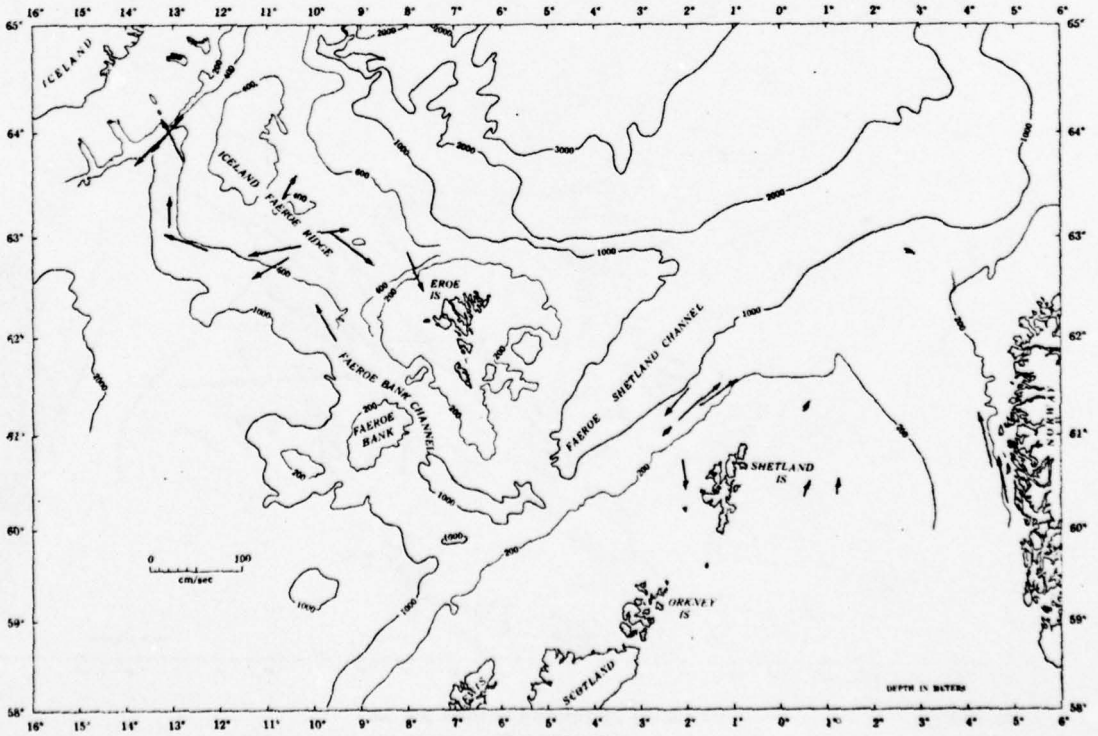

FIGURE 7 **NEAR BOTTOM MAXIMUM VELOCITY VECTORS**

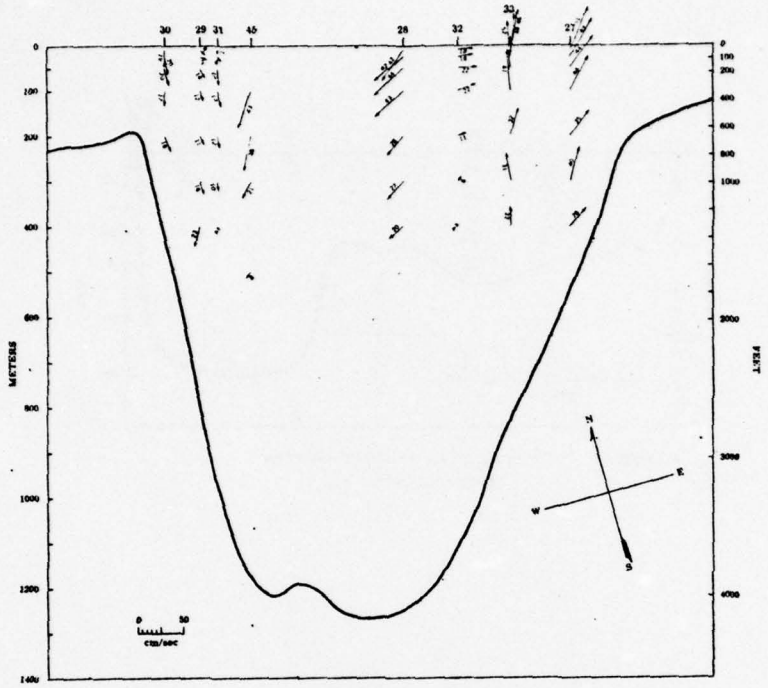

FIGURE 8 VECTORIAL MEAN VELOCITY VECTORS
CROSS-SECTION A

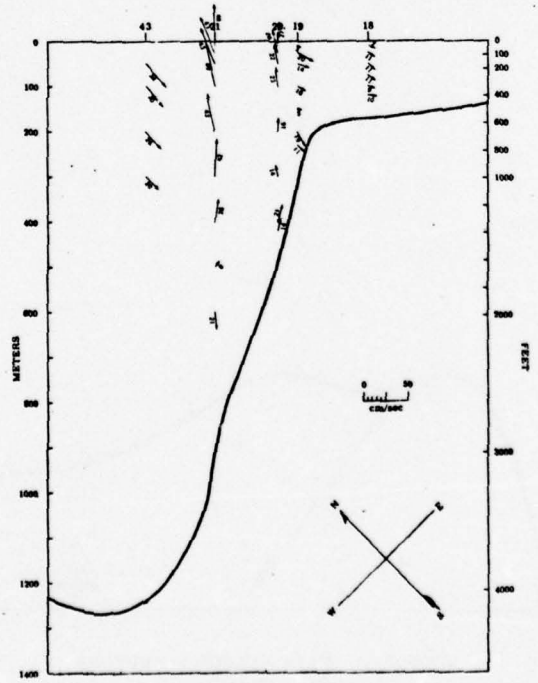

FIGURE 9 VECTORIAL MEAN VELOCITY VECTORS
CROSS-SECTION B

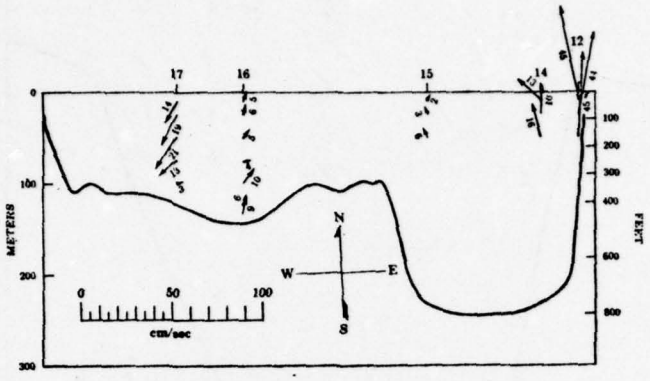

FIGURE 10 VECTORIAL MEAN VELOCITY VECTORS
CROSS-SECTION C

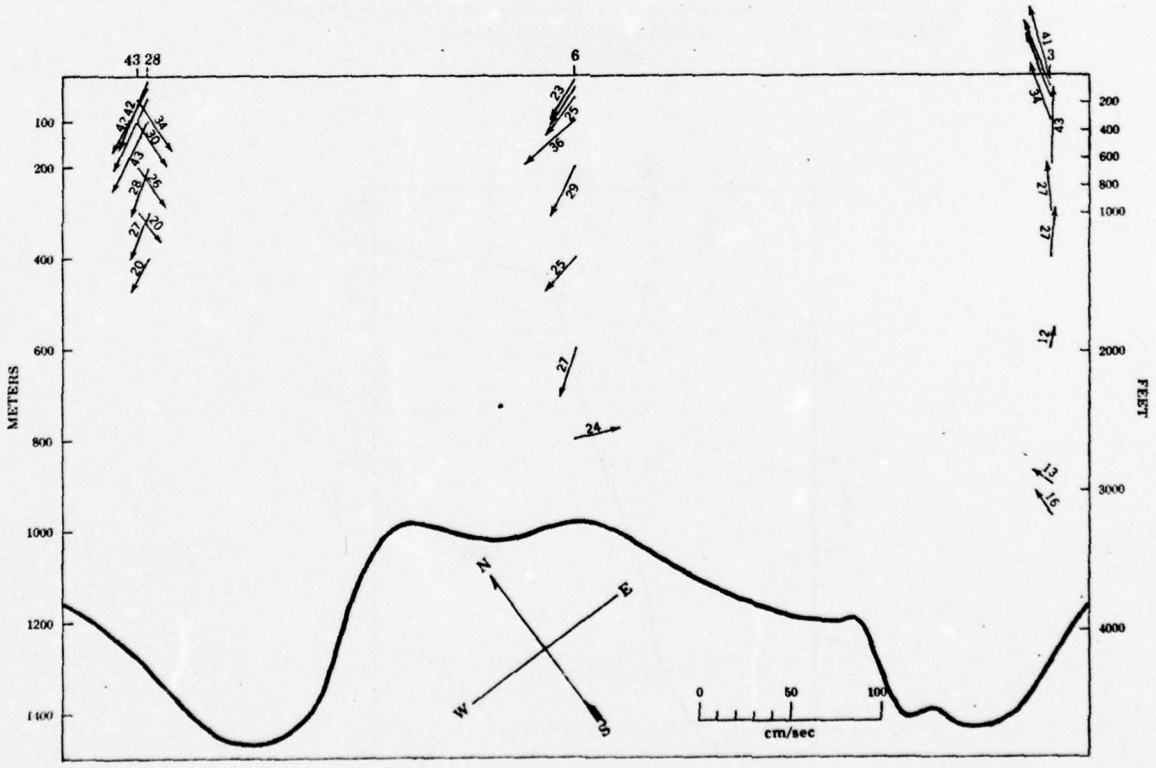

FIGURE 11 VECTORIAL MEAN VELOCITY VECTORS
CROSS-SECTION D

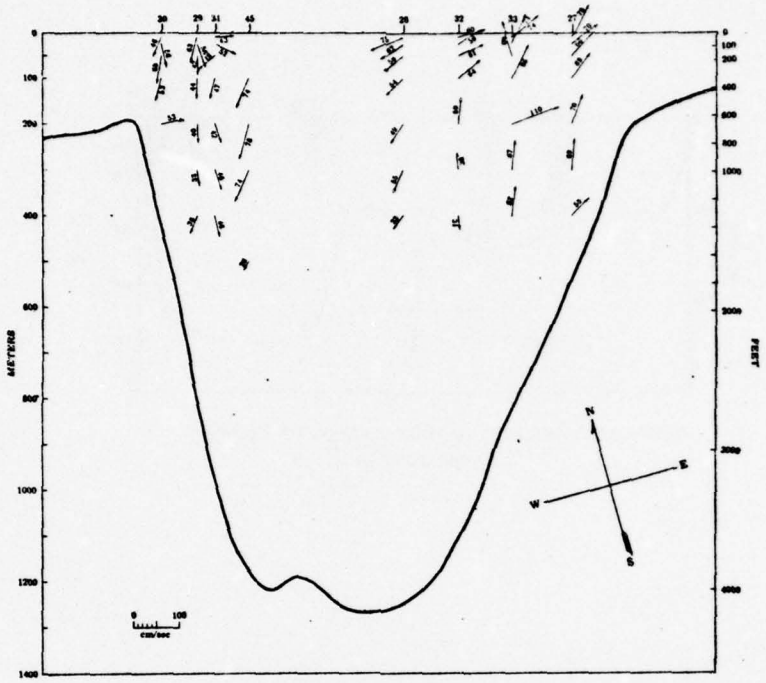

FIGURE 12 MAXIMUM OBSERVED VELOCITY VECTORS
CROSS SECTION A

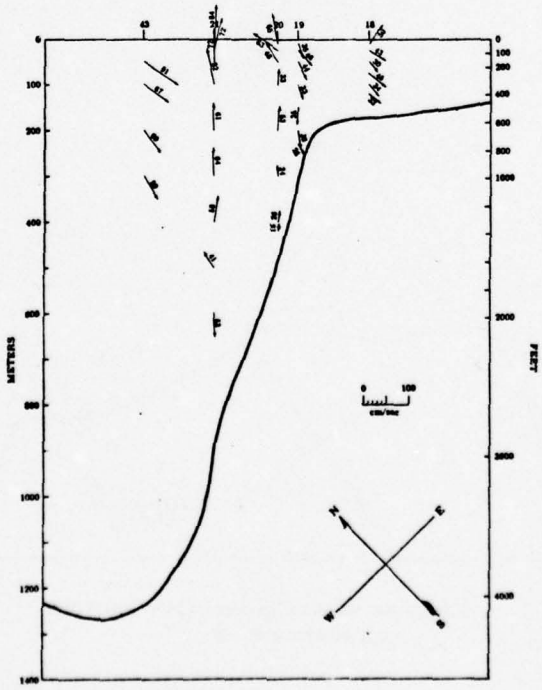

FIGURE 13 MAXIMUM OBSERVED VELOCITY VECTORS
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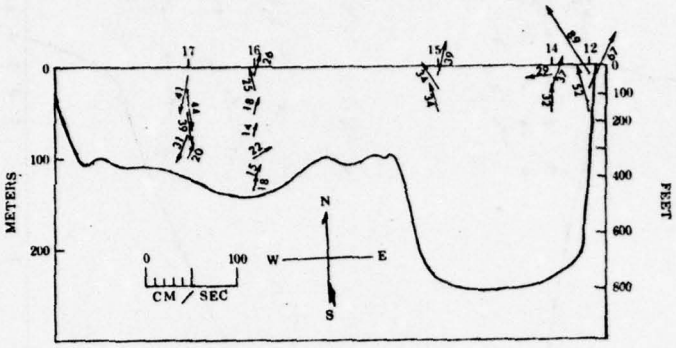

FIGURE 14 MAXIMUM OBSERVED VELOCITY VECTORS
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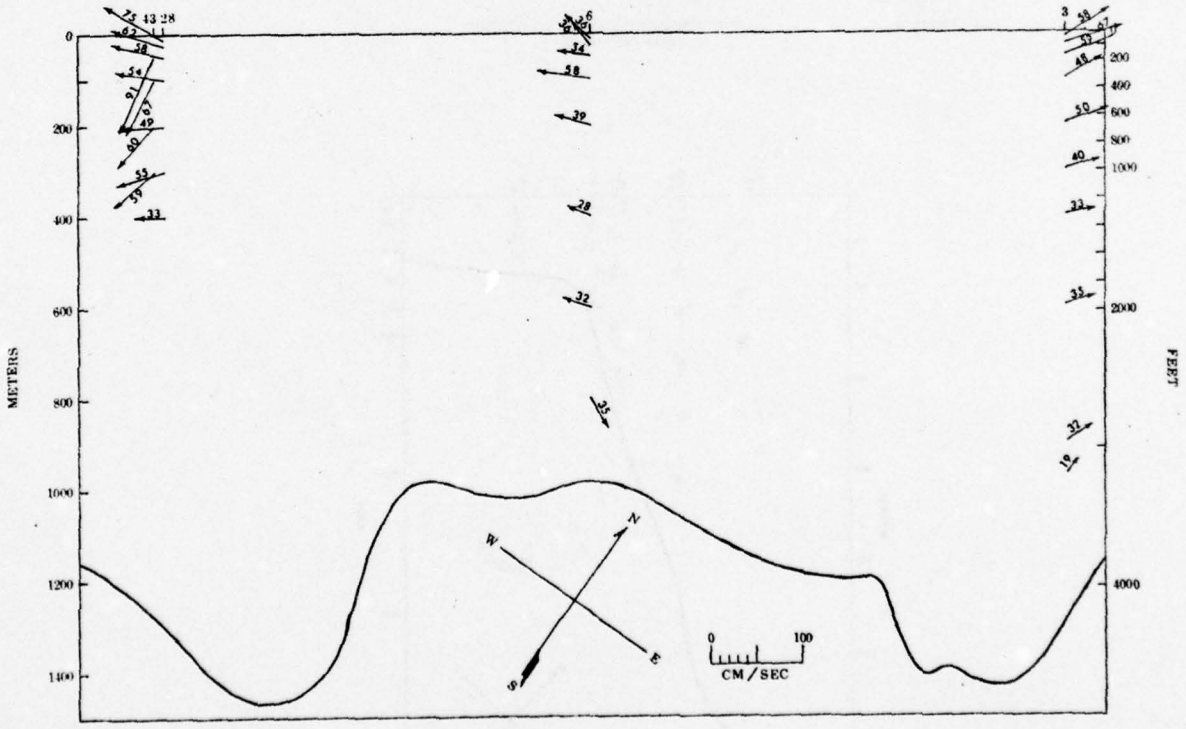

FIGURE 15

MAXIMUM OBSERVED VELOCITY VECTORS
CROSS SECTION D

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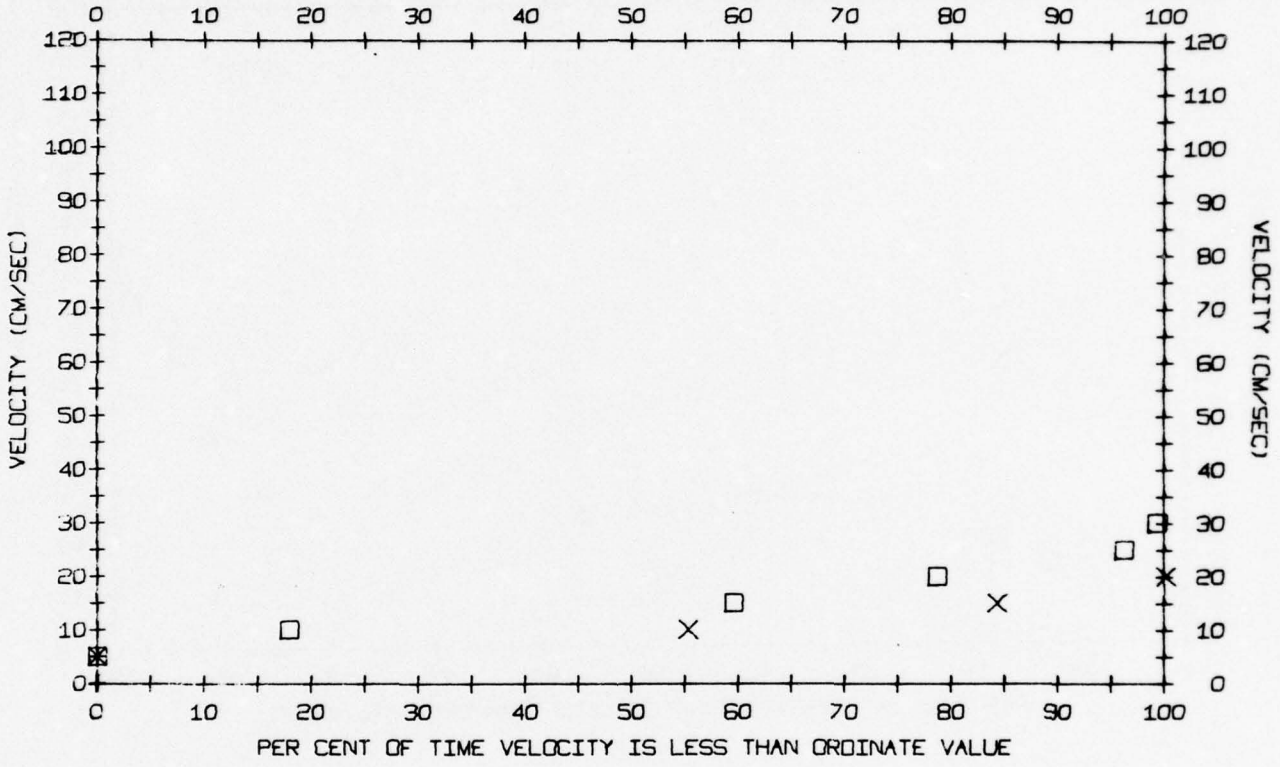

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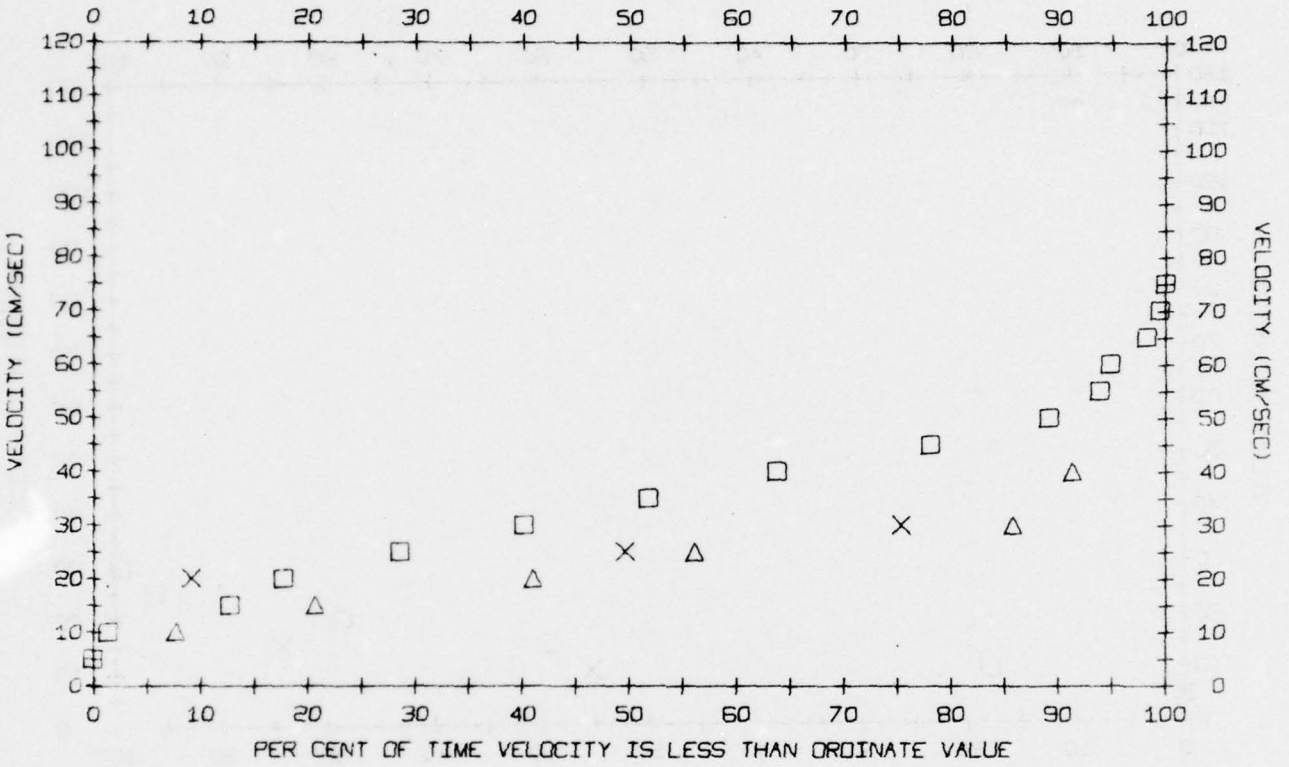
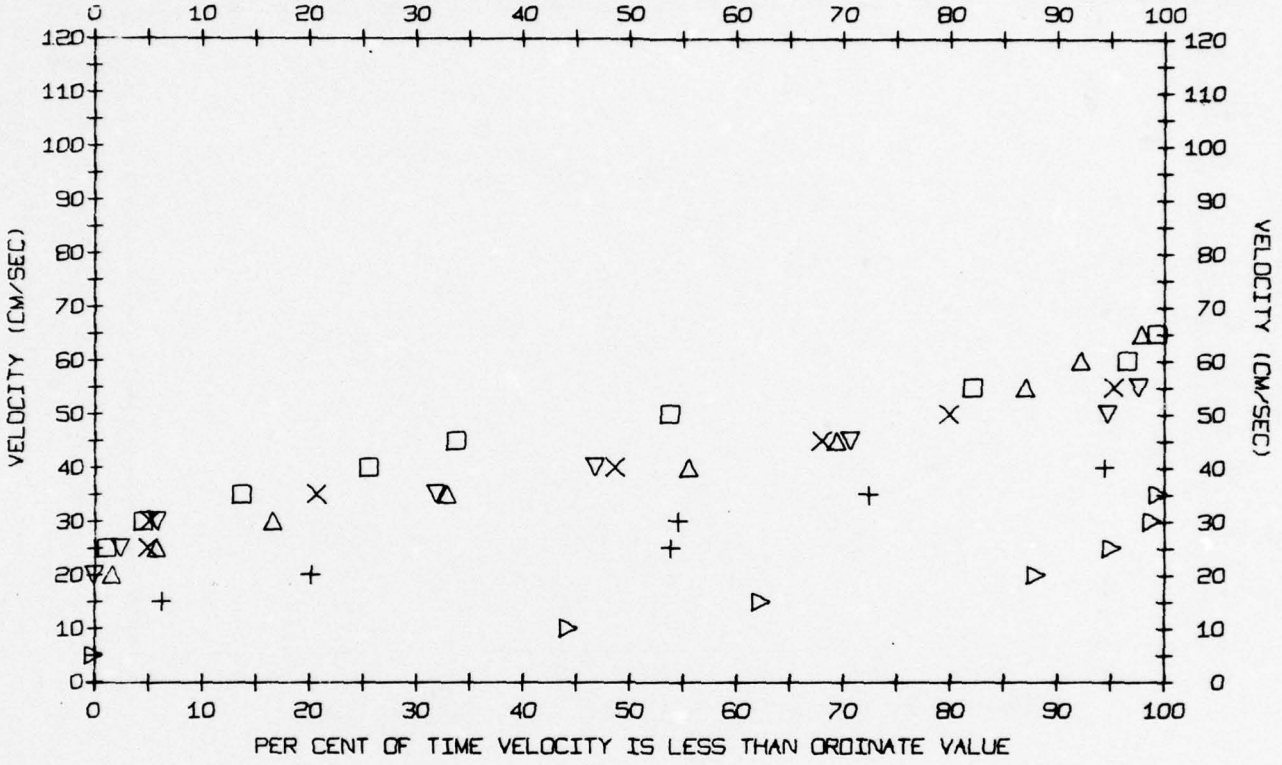
□	10	5	32	14.4	5.6	236.8	1.5	125
	25	7	15	11.4	2.8	224.3	4.3	8
X	50	5	22	10.7	4.0	192.5	3.4	26
	100	7	17	12.3	2.9	266.7	3.5	17
	200	8	14	12.0	2.5	281.6	11.3	6
	800	3	28	8.8	9.9	121.9	8.2	12

STATION 2 DATE 3 8 1923 LAT 64 0.0 N LONG 5 45.0 E



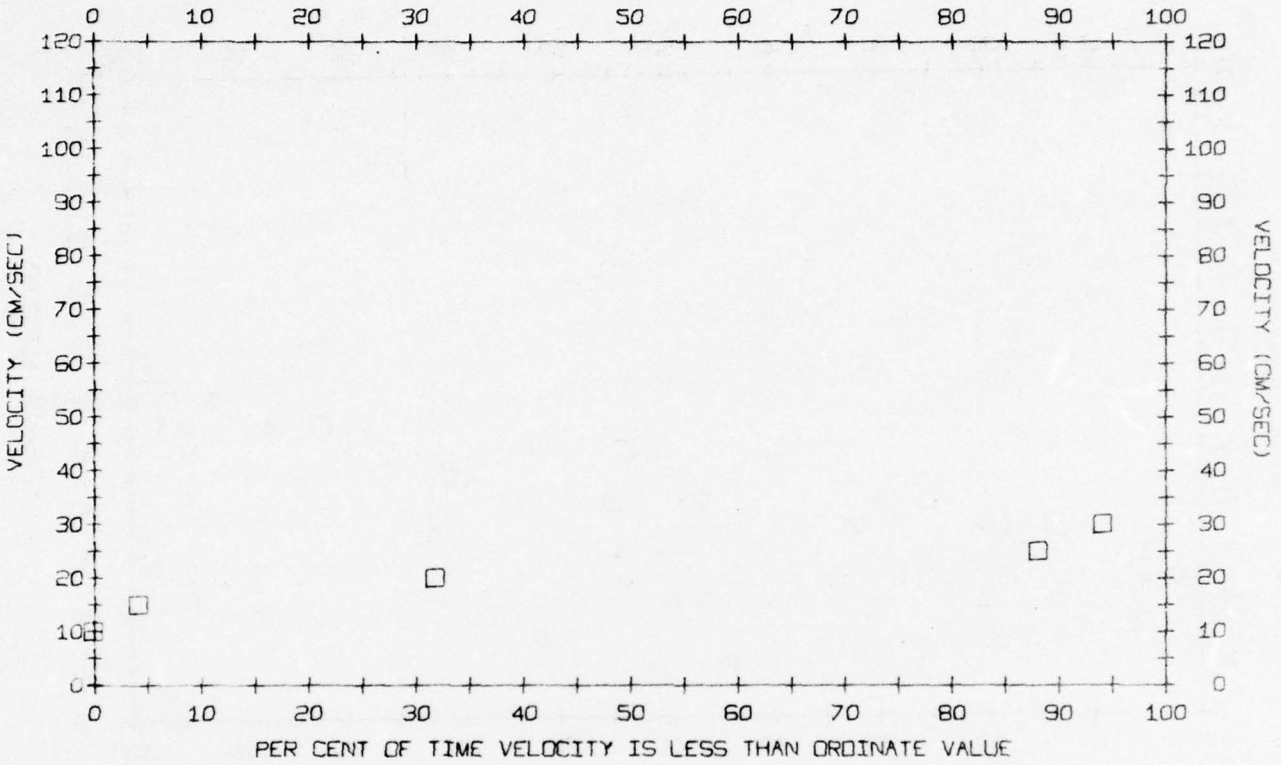
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	4	75	34.6	14.0	15.6	31.1	189
×	100	16	34	25.4	5.3	3.8	24.4	23
△	300	2	41	22.1	8.9	0.1	20.7	24

STATION 3 DATE 4 8 1923 LAT 64 3.0 N LONG 4 47.0 E



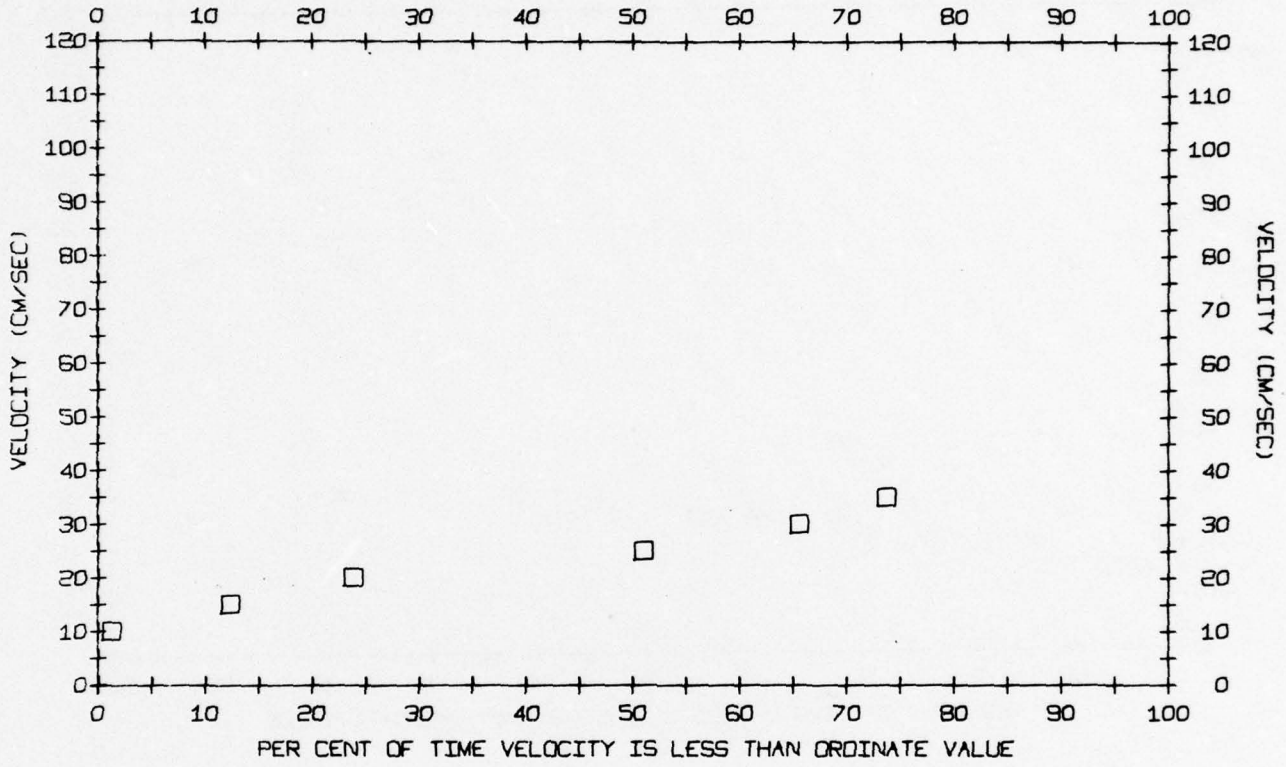
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	5	21	67	46.1	9.6	12.8	43.3	161
×	10	23	58	42.1	7.6	19.4	41.4	69
△	25	17	67	39.6	10.4	13.4	38.8	51
▽	50	20	59	38.3	7.2	14.4	37.1	45
	100	19	48	33.8	10.2	16.6	33.5	8
	200	35	50	43.0	5.8	37.2	42.9	6
+	300	13	40	27.1	8.4	30.6	26.9	19
	400	24	33	27.8	2.8	39.3	27.3	8
▷	600	5	35	13.2	7.5	45.1	12.0	24
	900	8	32	16.8	6.3	342.0	12.8	18
	970	14	19	16.0	1.6	4.3	16.0	9

STATION 4 DATE 9 8 1923 LAT 62 52.0 N LONG 2 40.0 E



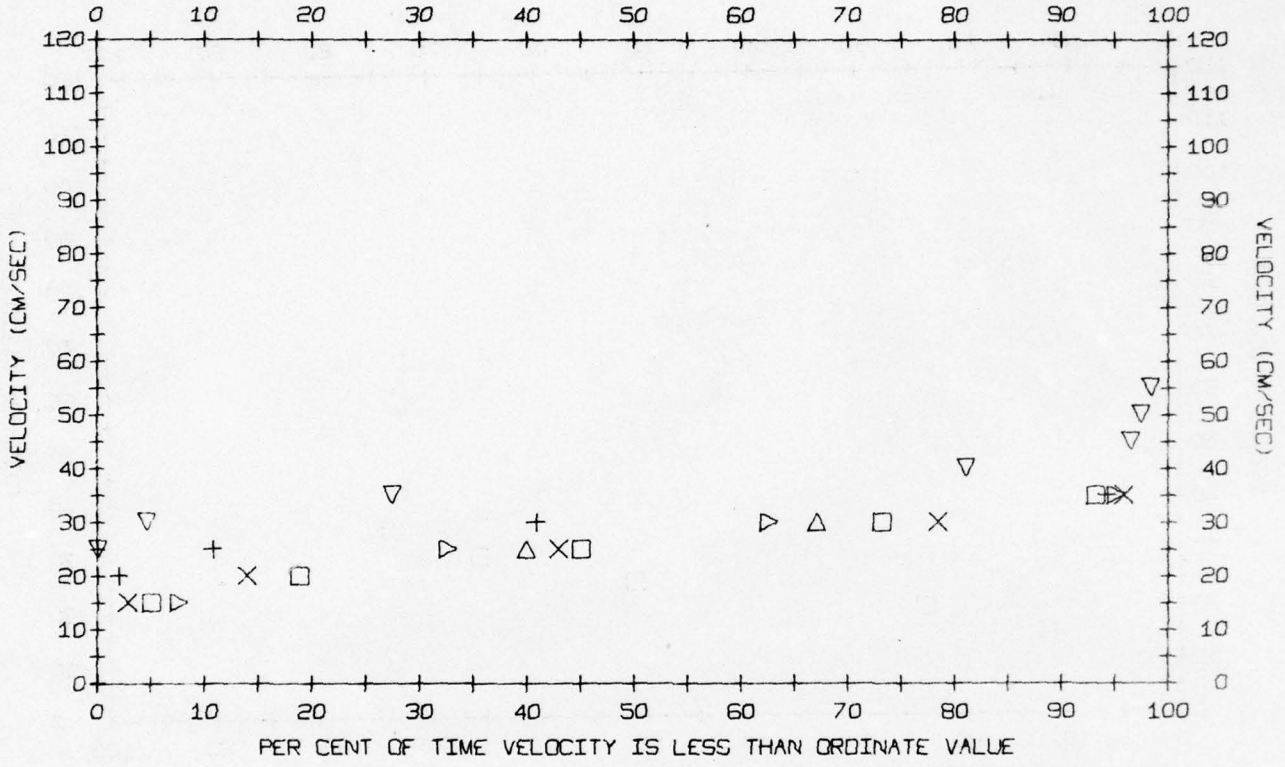
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	10	33	21.3	4.6	310.6	15.7	54
	100	16	30	23.3	3.8	285.4	10.5	12
	300	7	25	18.3	5.9	253.9	4.6	10
	575	12	14	12.7	1.2	123.1	12.6	2

STATION 5 DATE 12 8 1923 LAT 62 33.0 N LONG 2 29.0 E



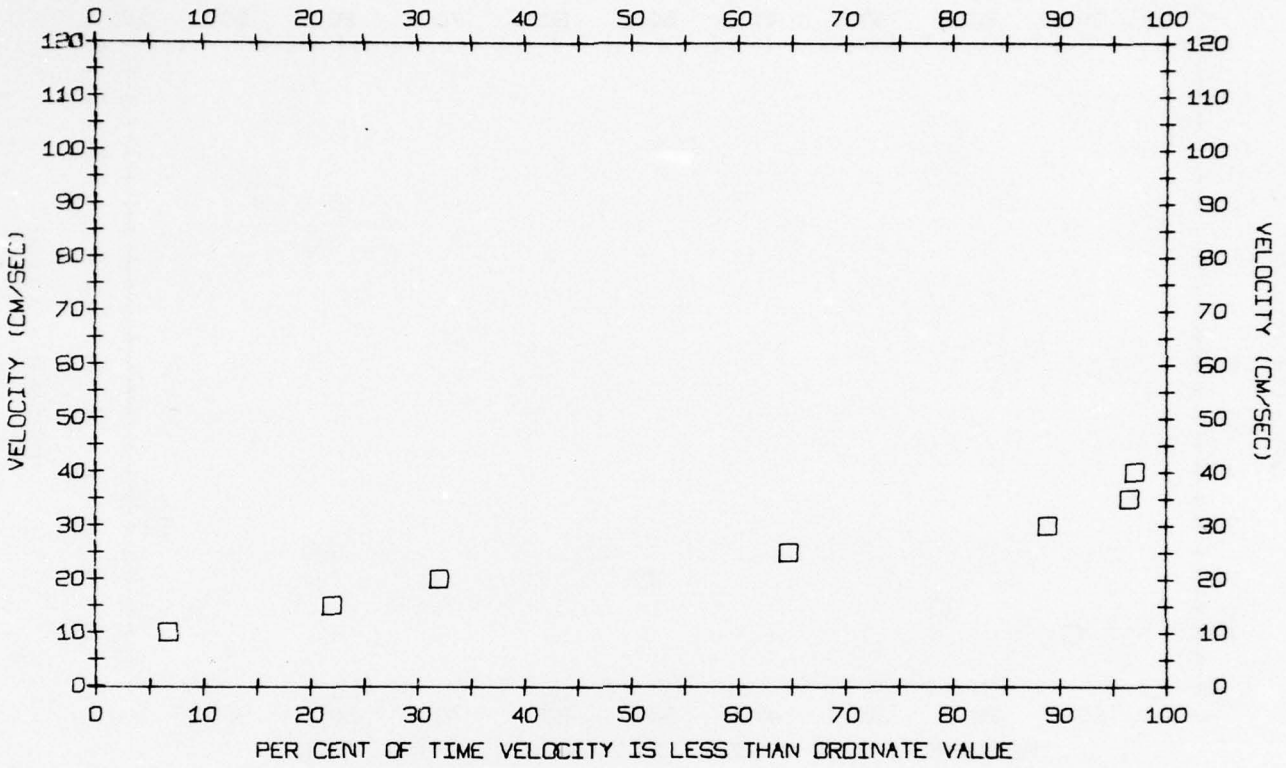
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
	10	19	29	24.0	3.7	198.2	11.8	6
□	25	6	37	24.3	9.0	203.3	16.5	25

STATION 6 DATE 13 8 1923 LAT 62 42.0 N LONG 0 33.0 E



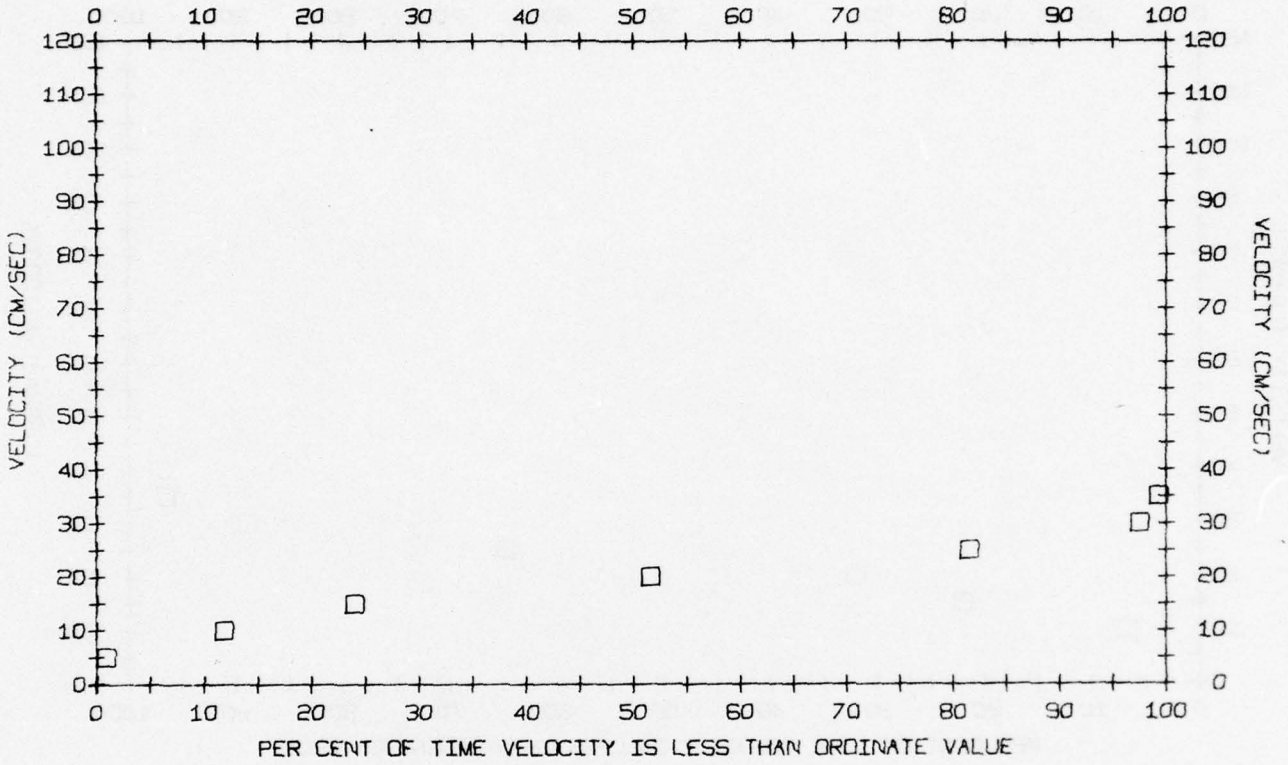
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
	5	20	28	24.0	3.7	303.9	23.3	3
□	10	13	36	26.4	5.2	248.0	24.8	49
×	25	13	36	25.1	5.3	249.0	23.6	63
△	50	21	34	26.4	3.1	254.3	24.7	22
▽	100	25	58	36.4	5.5	265.2	35.8	44
+	200	16	38	29.1	4.7	242.3	28.7	34
	400	23	28	24.6	2.1	258.3	24.6	4
	600	23	32	27.6	2.8	234.9	26.7	9
▷	800	14	35	25.2	6.4	112.0	24.0	24

STATION 7 DATE 15 8 1923 LAT 62 46.0 N LONG 0 21.0 E



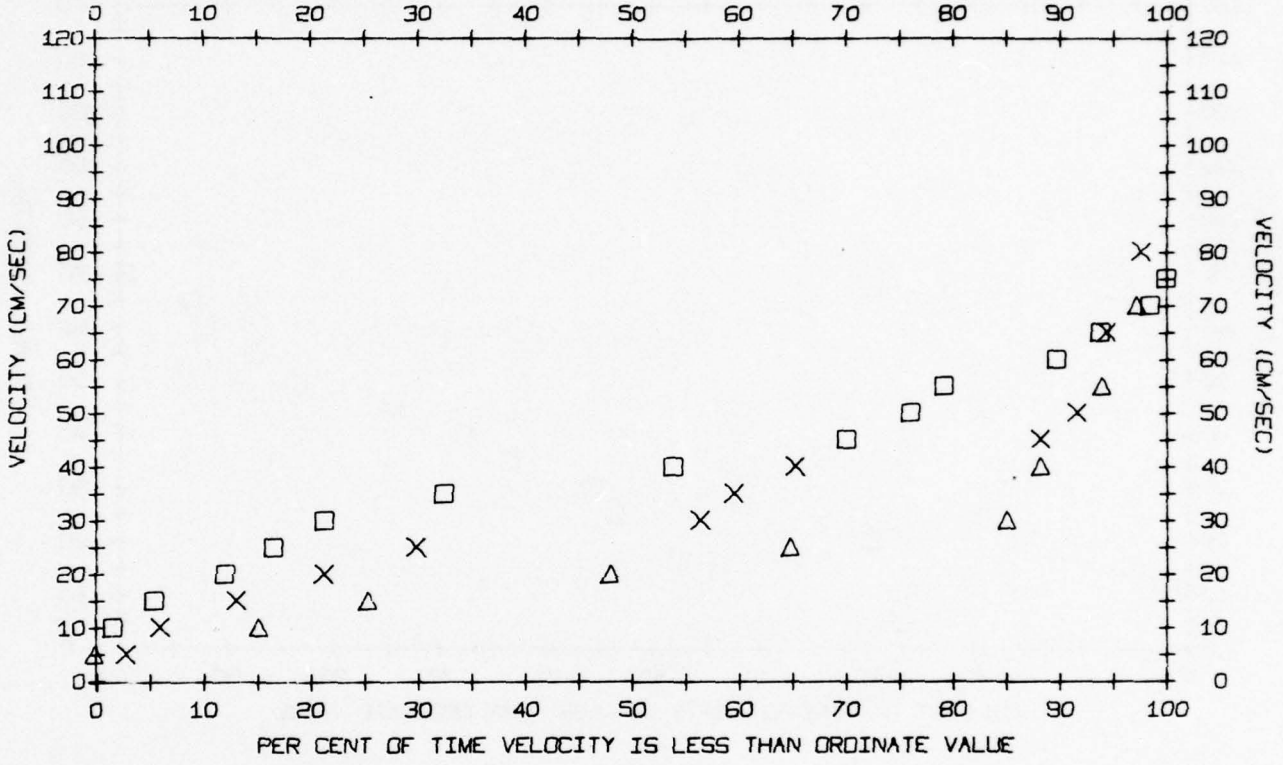
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
	10	5	19	12.6	5.1	275.9	11.2	8
□	25	7	42	21.0	8.2	288.3	17.8	34
	100	33	37	34.6	1.8	260.3	34.6	4
	200	29	33	30.6	1.3	272.6	30.4	6
	400	4	8	5.7	1.3	293.4	2.5	14
	600	24	32	28.9	2.2	90.7	22.4	15
	800	16	30	23.6	5.8	91.9	16.3	15
	1050	12	29	21.8	7.5	72.2	17.5	12

STATION 8 DATE 14 8 1923 LAT 62 7.0 N LONG 0 20.0 E



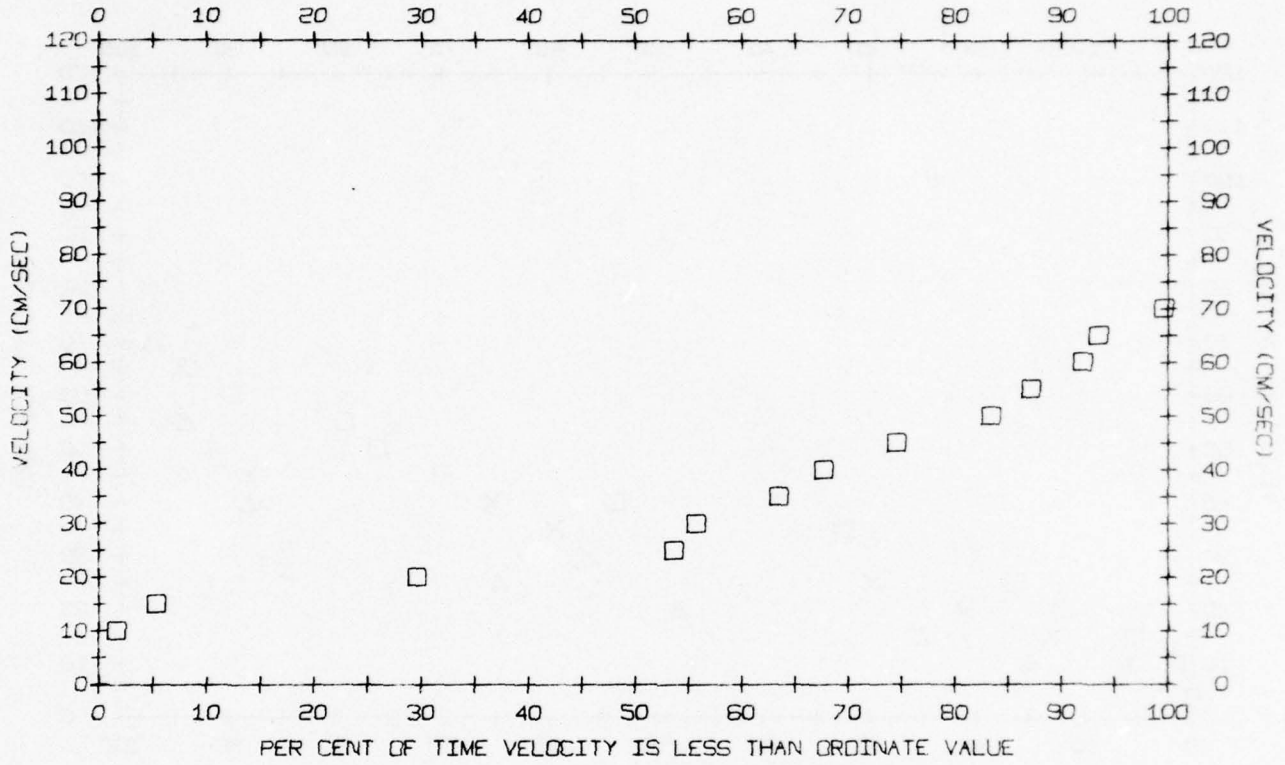
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	3	37	19.1	6.5	146.4	14.8	148
	100	4	27	13.9	8.0	151.8	12.1	18
	300	5	21	12.2	6.0	161.1	9.0	18
	467	12	29	20.8	6.9	247.1	14.7	5

STATION 9 DATE 16 8 1923 LAT 61 17.0 N LONG -1 44.0 W



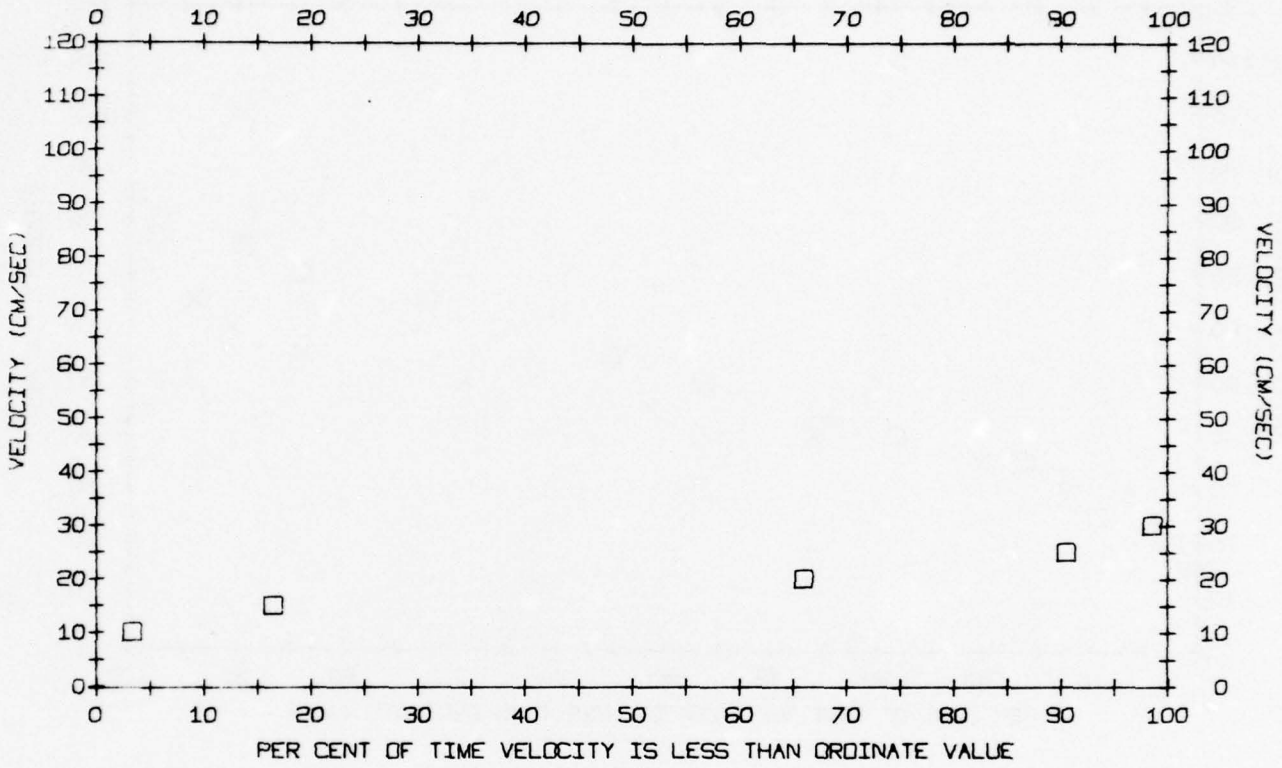
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
	1	38	69	47.6	9.9	354.2	40.1	8
	2	27	65	50.5	17.3	0.9	46.5	3
□	10	6	77	40.6	14.5	25.2	24.0	225
×	100	4	80	32.1	16.8	13.4	27.1	31
△	300	5	73	23.9	14.2	11.7	21.5	32
	550	20	52	31.6	9.7	127.9	11.4	8

STATION 10 DATE 17 8 1923 LAT 61 28.0 N LONG -1 58.0 W



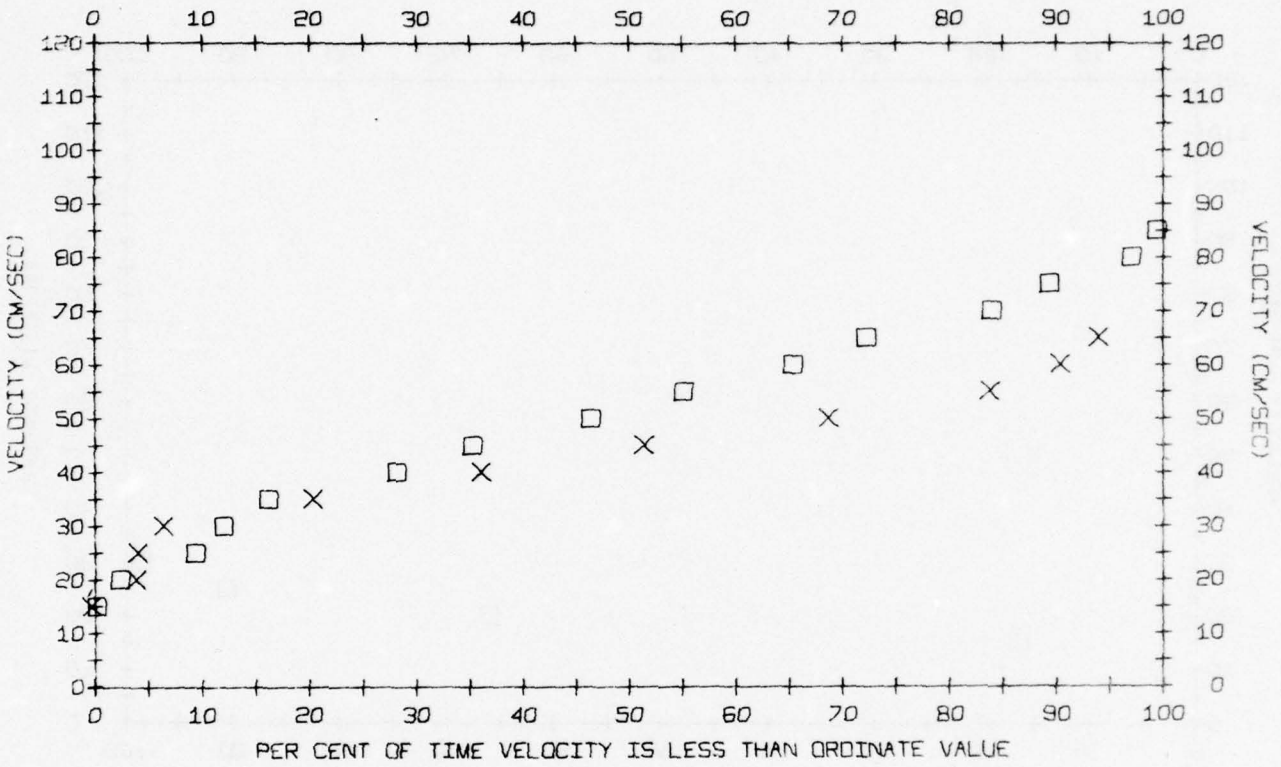
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
	10	17	60	33.9	15.7	35.4	32.0	9
□	25	8	74	31.8	16.5	44.7	30.0	61
	100	32	53	43.1	6.0	59.1	41.3	15
	200	17	31	24.6	5.3	47.3	24.3	13
	300	6	48	34.6	18.2	60.1	32.2	6
	400	20	32	22.4	3.4	179.4	16.3	10
	600	34	52	42.5	7.8	226.9	42.2	11
	800	27	41	37.7	5.4	224.4	37.6	5

STATION 11 DATE 18 8 1923 LAT 61 29.0 N LONG -2 8.0 W



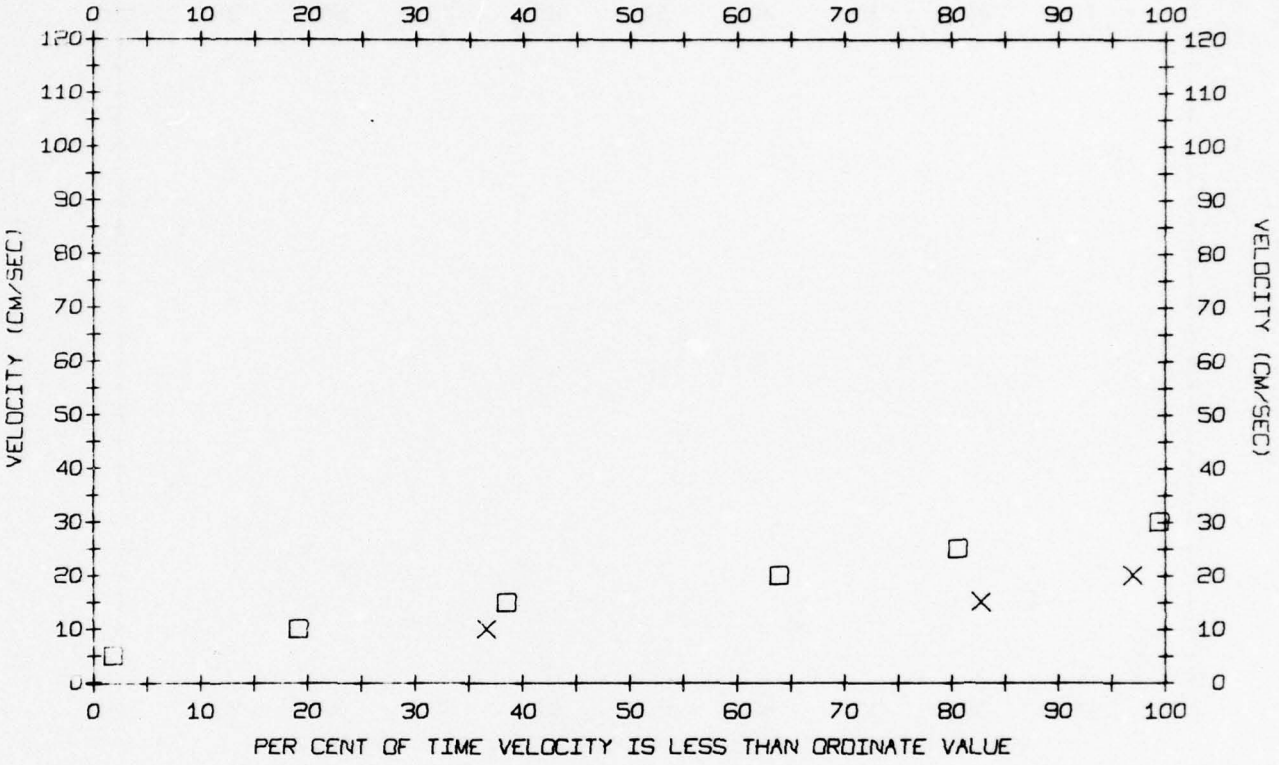
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
	10	8	28	15.7	7.3	313.7	10.9	5
□	25	8	33	19.0	5.1	5.6	14.6	65
	50	8	27	20.3	8.2	293.5	13.9	5
	100	23	34	28.3	4.1	275.9	26.6	6
	200	9	25	20.6	6.5	262.3	20.6	4
	400	34	36	35.2	0.8	220.0	35.2	4
	600	49	52	50.0	1.4	215.2	50.0	4
	750	29	53	37.9	9.6	222.3	34.5	14
	800	25	25	25.0	0.1	230.0	24.6	9

STATION 12 DATE 17 7 1924 LAT 60 16.0 N LONG 4 51.0 E



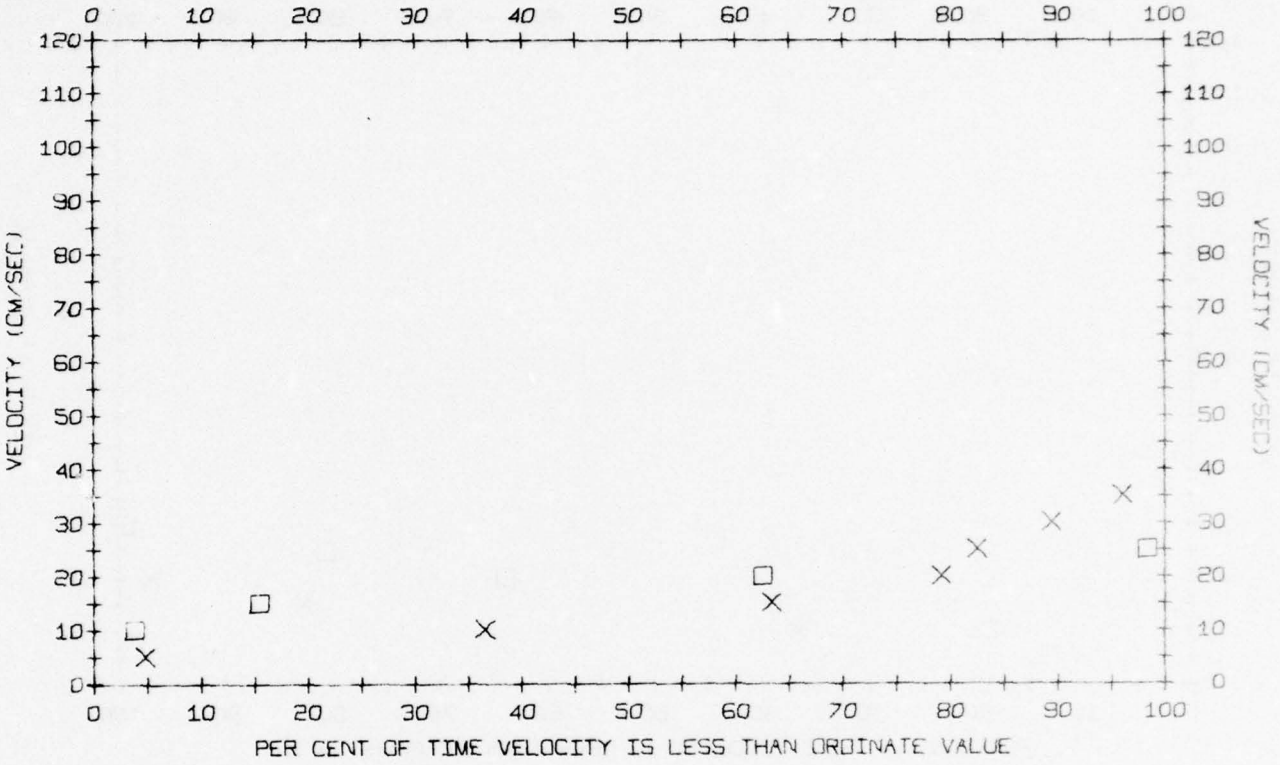
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	13	89	52.1	17.0	350.8	44.9	213
×	25	15	67	46.5	10.3	13.9	44.2	71
	50	44	52	47.5	3.1	5.2	45.2	5

STATION 13 DATE 20 7 1924 LAT 60 36.0 N LONG 3 15.0 E



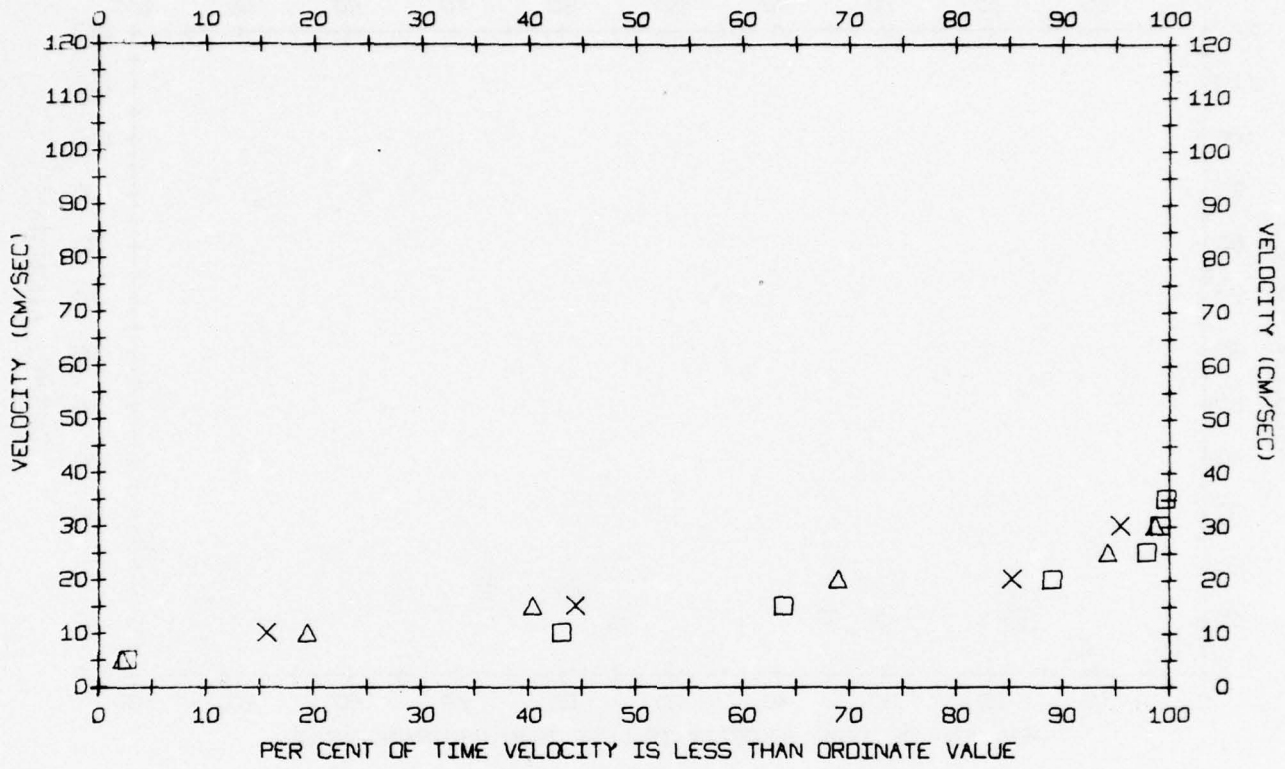
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	4	34	17.0	6.8	188.1	8.9	51
×	25	6	22	11.8	3.7	140.3	8.7	46

STATION 14 DATE 24 7 1924 LAT 60 15.0 N LONG 4 26.0 E



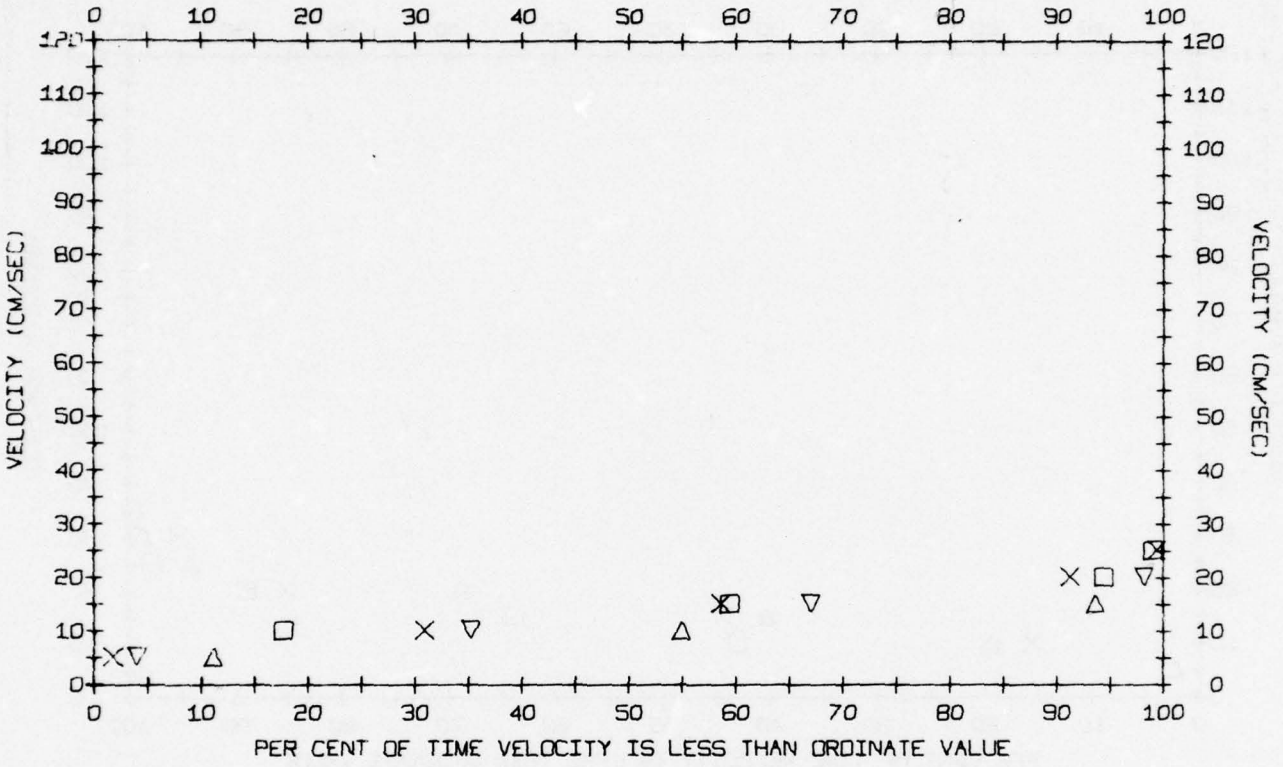
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	7	29	17.2	4.4	315.2	13.2	38
×	25	3	37	16.7	9.6	4.1	10.3	25
	50	8	32	17.9	7.7	348.6	15.9	12

STATION 15 DATE 25 7 1924 LAT 60 18.0 N LONG 3 12.0 E



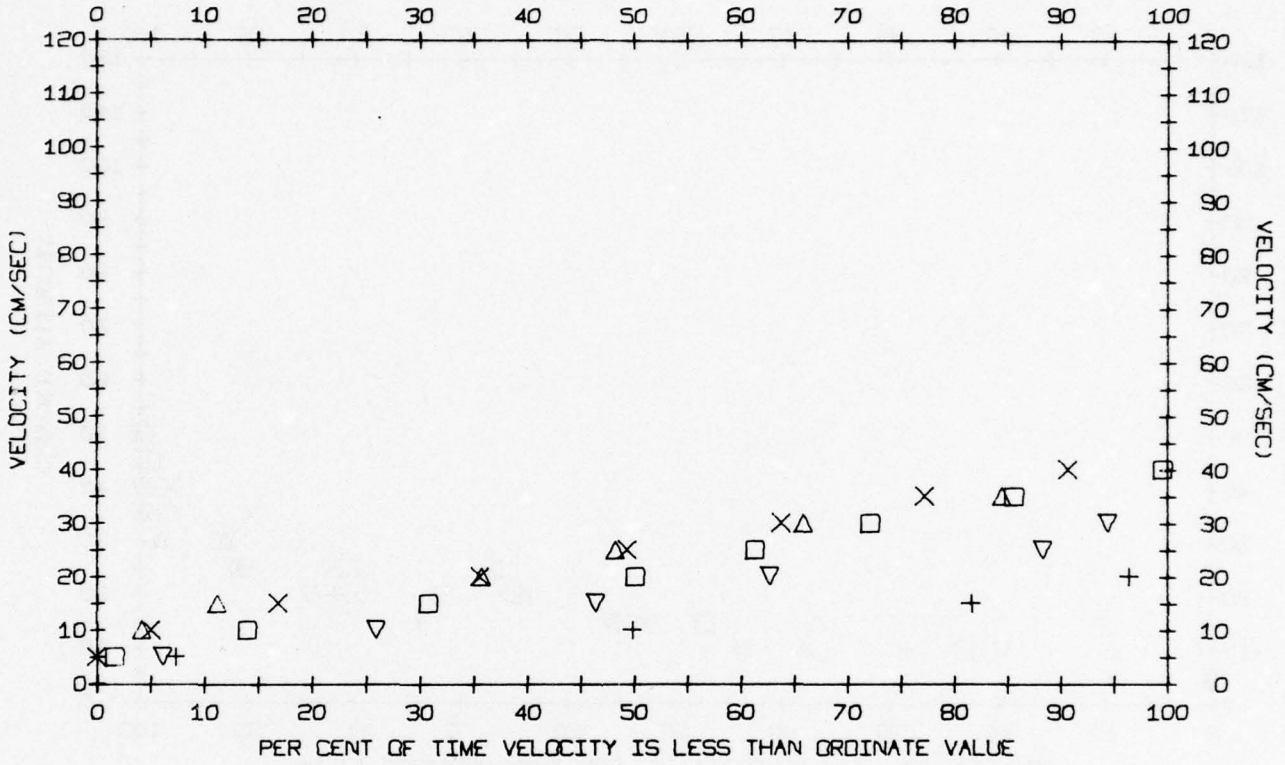
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	4	39	12.8	5.8	30.2	2.0	159
×	25	6	34	15.2	5.5	337.3	3.1	82
△	50	4	32	16.3	5.8	336.8	5.5	52

STATION 16 DATE 27 7 1924 LAT 60 22.0 N LONG 1 13.0 E



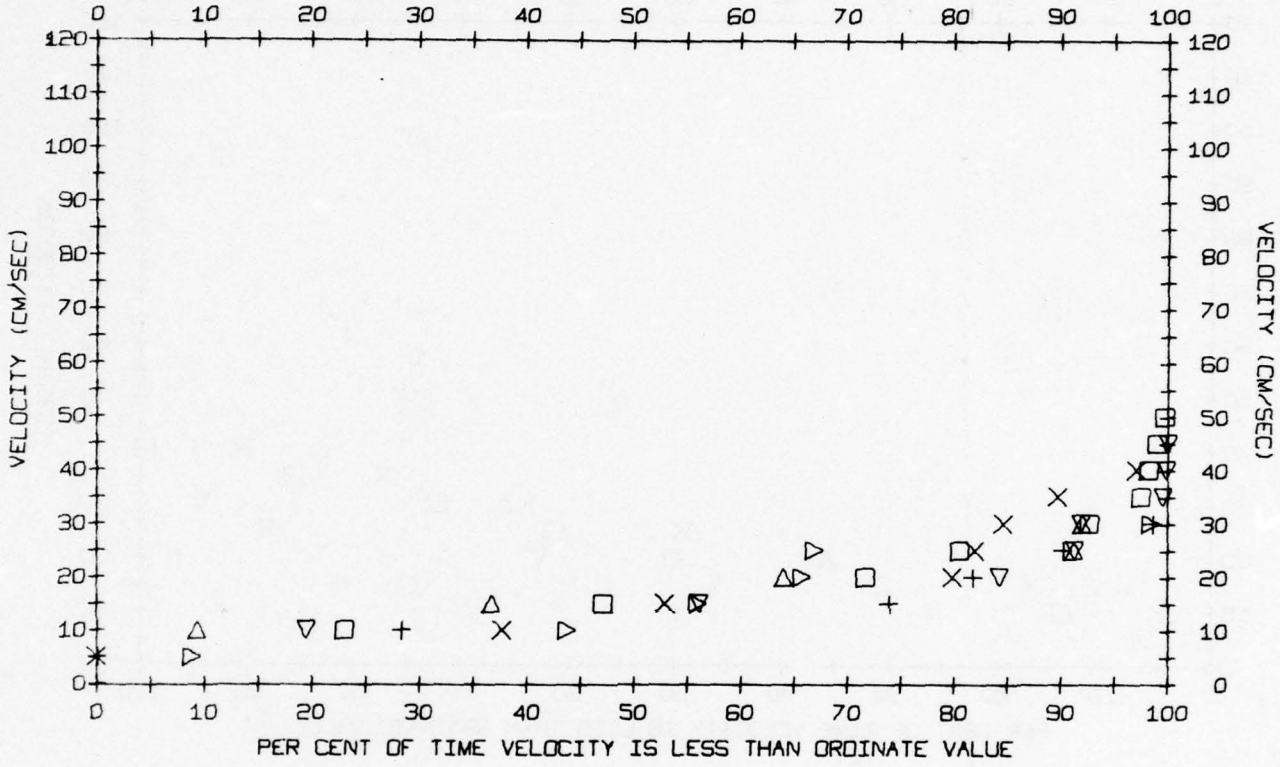
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	6	26	13.8	4.0	20.3	5.0	171
×	25	4	25	13.4	4.8	15.2	6.0	109
△	50	3	18	9.7	3.6	39.9	5.0	54
	75	5	14	9.5	2.9	79.1	3.9	10
▽	100	4	22	13.1	4.2	36.7	10.1	105
	125	6	15	9.4	3.1	21.8	5.8	10
	135	4	18	10.5	4.5	13.0	8.6	14

STATION 17 DATE 29 7 1924 LAT 60 20.0 N LONG 0 30.0 E



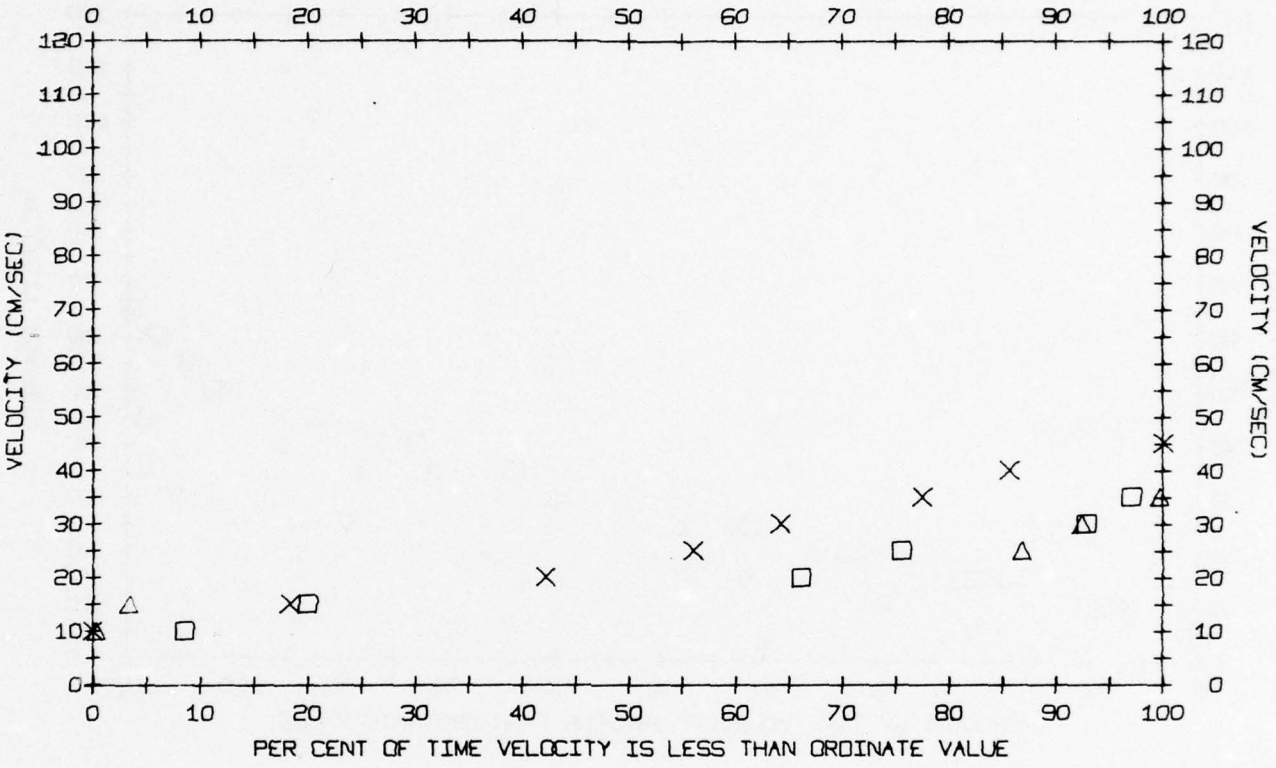
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	4	41	21.0	9.9	211.9	14.0	152
×	25	5	44	25.3	10.1	208.6	18.8	156
△	50	8	39	23.8	8.6	214.9	21.2	43
▽	75	3	31	15.5	7.2	230.7	13.0	36
+	100	2	20	9.8	4.3	71.9	2.7	100

STATION 18 DATE 3 8 1924 LAT 60 44.0 N LONG -2 6.0 W



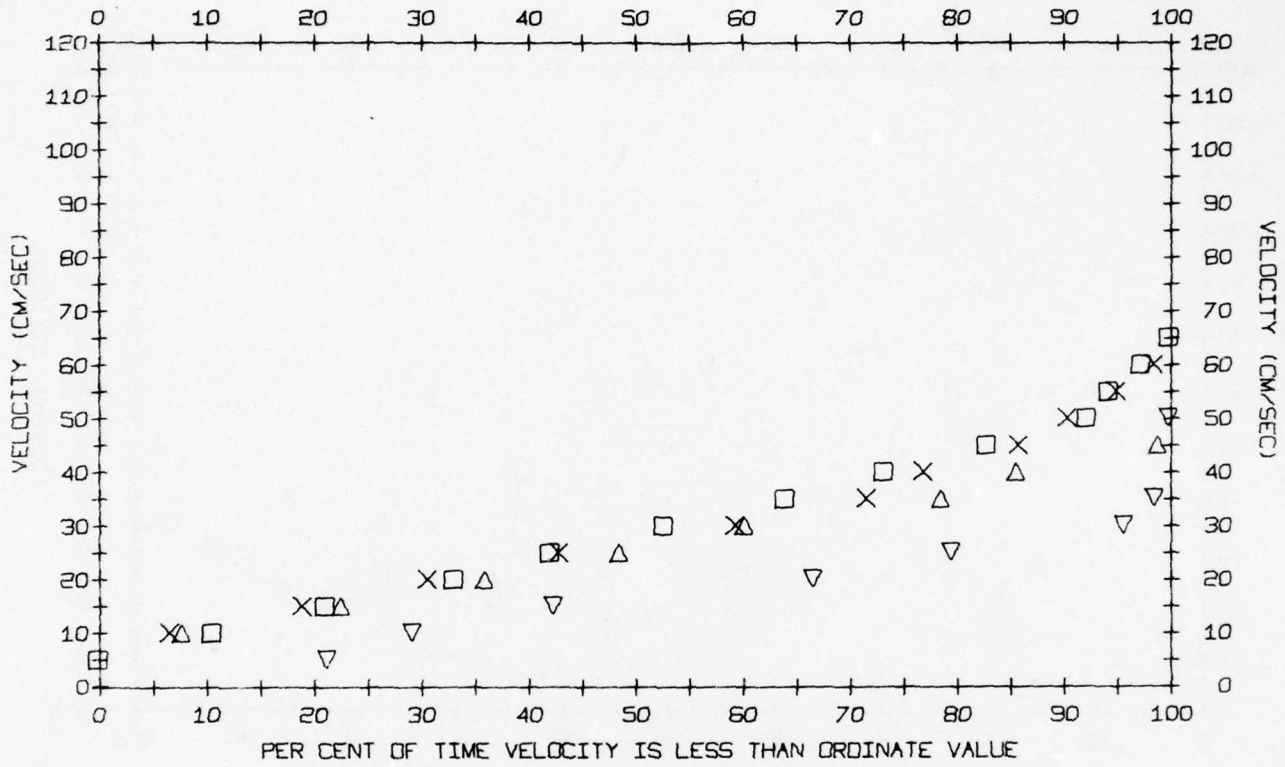
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	6	50	16.6	8.2	158.3	9.0	64
×	25	5	43	15.7	10.5	168.8	10.6	64
△	50	6	30	17.6	6.6	178.7	11.4	19
▽	75	6	45	16.3	9.3	170.9	11.1	23
+	100	5	34	15.2	9.1	156.4	9.0	22
▷	120	4	33	16.6	10.3	143.4	10.1	20

STATION 19 DATE 4 8 1924 LAT 60 55.0 N LONG -2 28.0 W



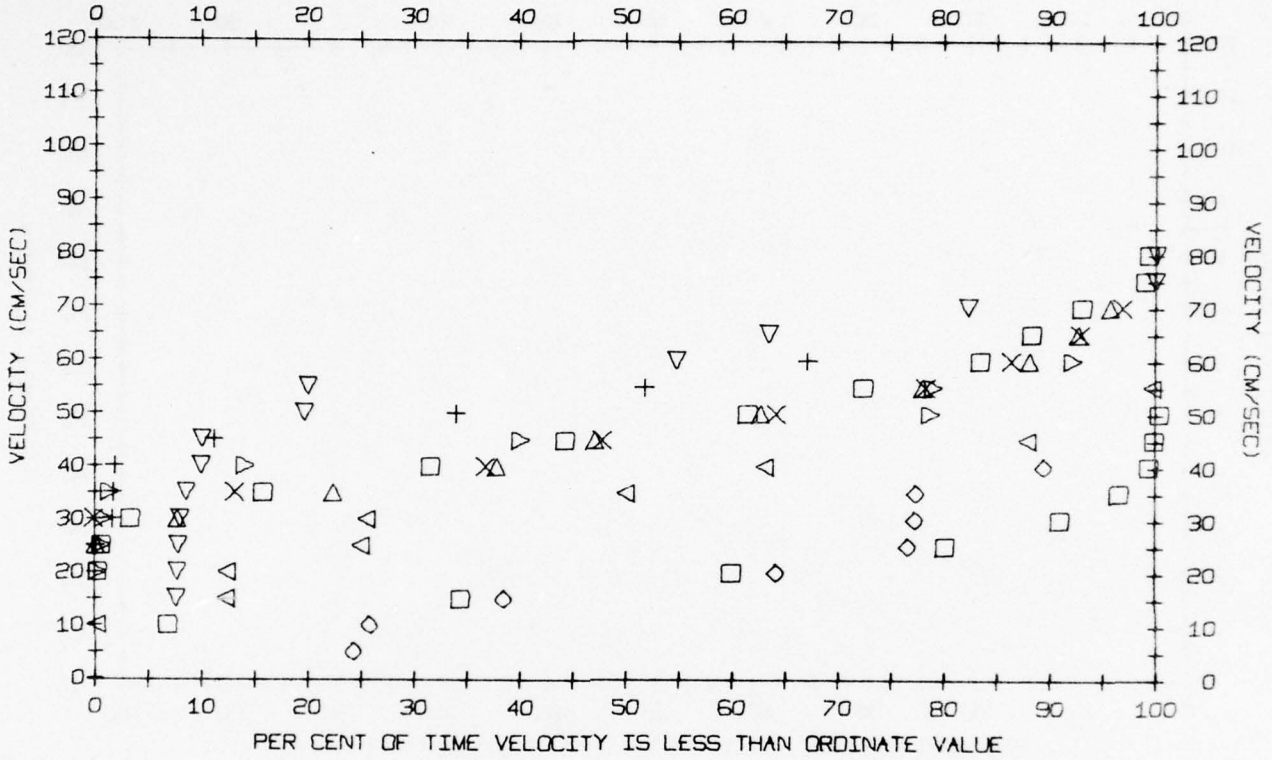
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	7	35	19.5	7.1	158.1	2.9	36
×	25	10	46	25.9	11.5	164.6	20.4	25
	50	7	44	21.9	10.9	155.2	13.9	14
	100	9	33	20.6	9.3	165.6	10.2	7
	150	7	35	16.1	11.1	146.6	5.4	8
△	200	8	38	25.1	8.5	198.0	18.9	21
	230	6	26	16.0	10.5	177.8	10.6	3

STATION 20 DATE 11 8 1924 LAT 60 59.0 N LONG -2 33.0 W



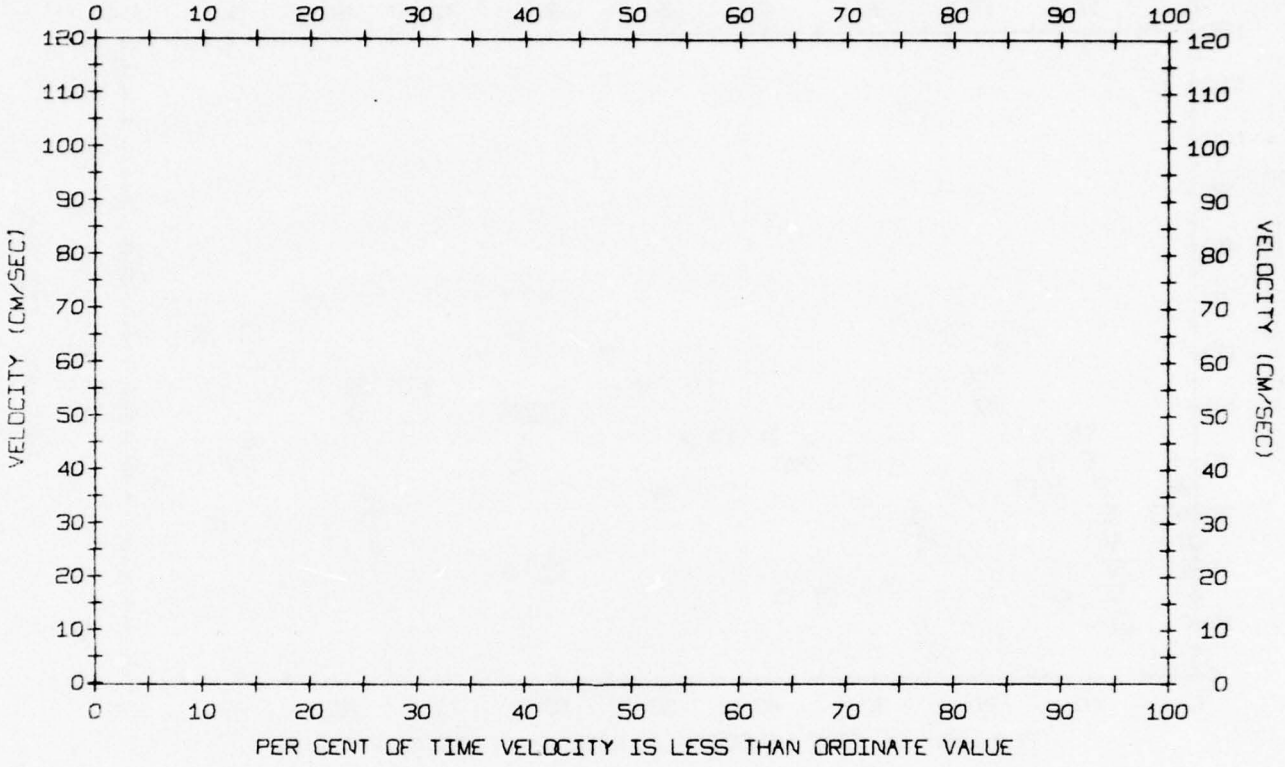
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	5	65	30.7	14.9	46.6	27.0	139
X	25	7	63	29.3	14.3	32.1	25.6	120
△	50	6	48	25.7	11.4	34.7	22.5	76
	100	14	33	23.2	7.4	38.9	23.0	4
▽	200	2	53	16.5	10.0	48.3	15.7	135
	300	6	24	14.7	9.0	34.5	14.5	2
	400	8	26	20.9	4.1	59.4	20.8	17
	420	13	15	14.0	0.8	56.9	13.9	3

STATION 21 DATE 13 8 1924 LAT 61 8.0 N LONG -2 53.0 W



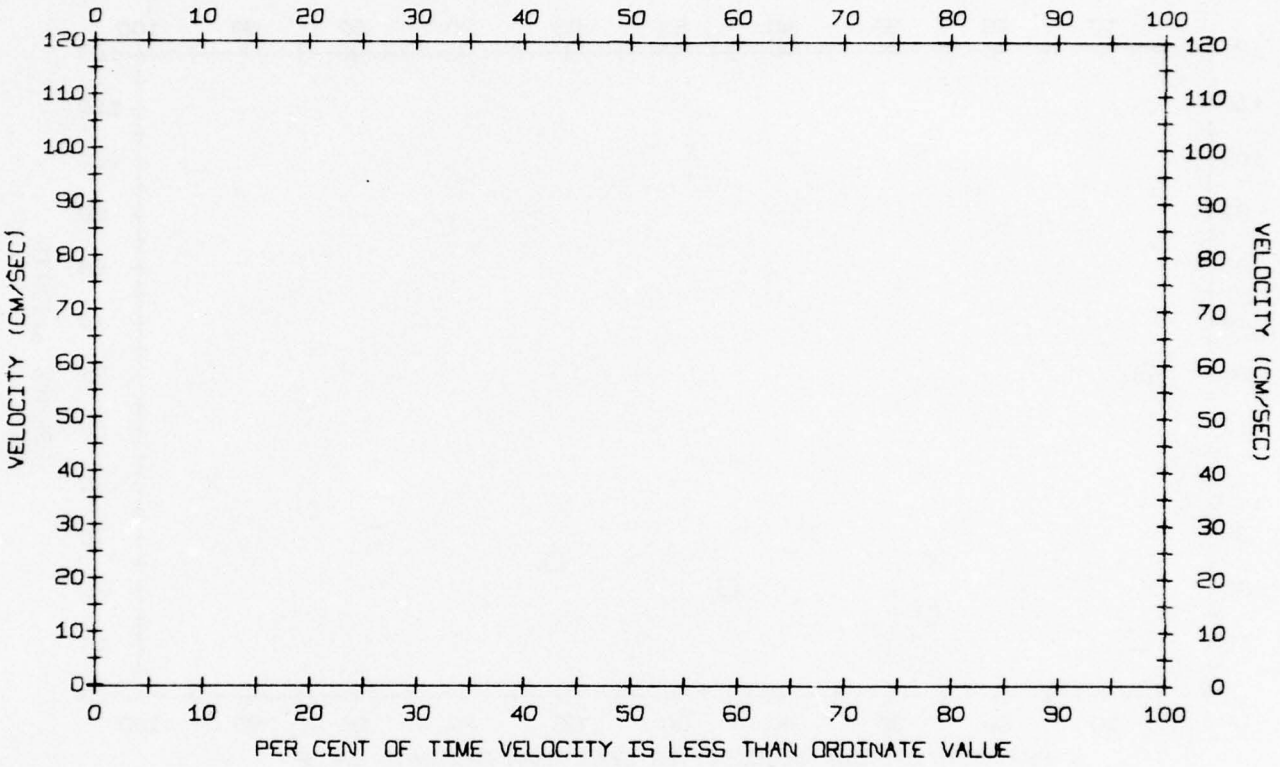
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	16	84	48.6	13.0	42.4	47.5	166
×	25	30	72	45.8	10.5	22.3	43.3	80
△	50	25	72	45.6	12.0	22.5	42.8	79
▽	100	9	82	53.4	17.1	31.7	49.0	28
+	200	23	61	45.2	12.7	33.1	43.4	20
▷	300	18	64	43.7	11.2	47.9	41.7	22
◁	400	10	58	30.3	14.2	53.0	26.1	26
◇	500	2	41	15.2	12.7	81.9	7.9	21
□	600	7	53	23.1	9.8	221.2	20.5	85

STATION 22 DATE 11 7 1928 LAT 58 30.0 N LONG -5 40.0 W



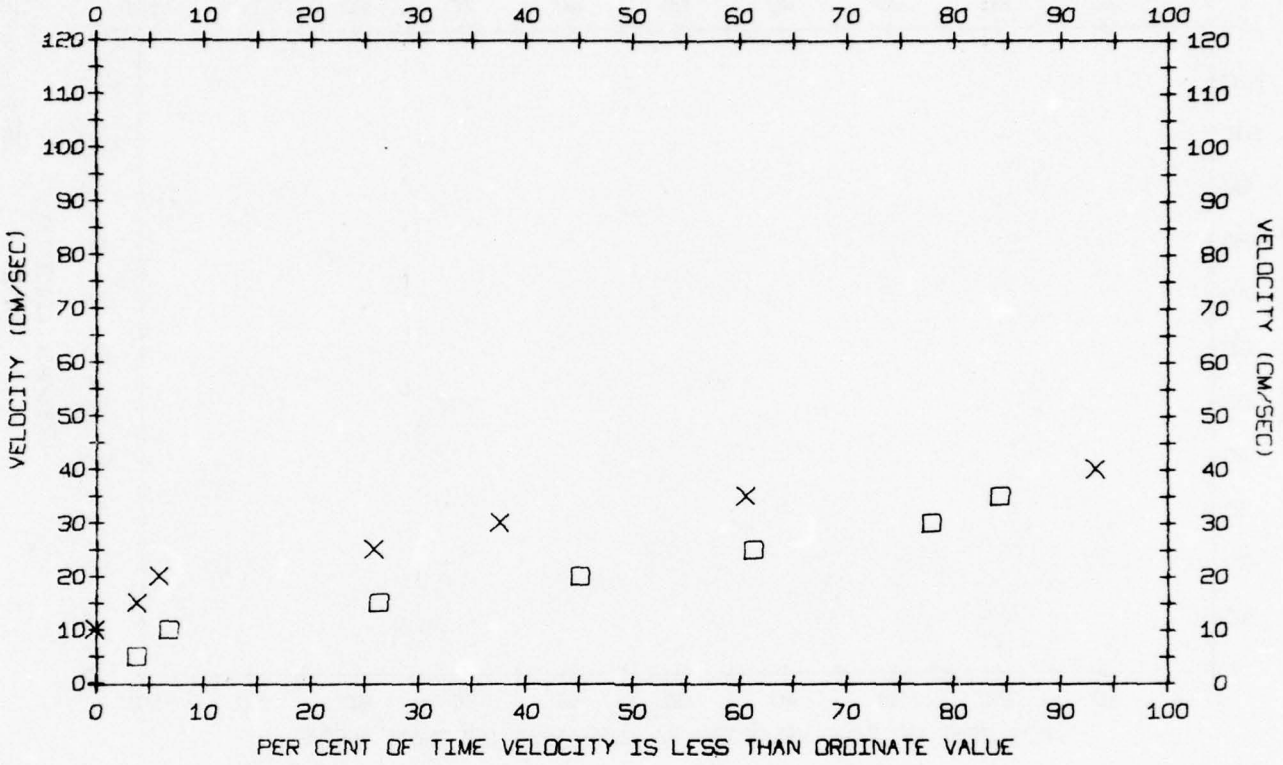
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
	10	7	23	15.0	4.9	188.9	12.8	8
	25	11	23	17.0	6.0	357.0	16.9	2
	40	6	15	10.8	3.7	250.8	6.0	4
	50	14	34	22.7	10.3	92.7	11.8	2
	60	12	15	13.3	1.5	222.1	8.3	2
	80	8	13	10.3	2.5	110.5	7.1	2
	90	8	11	9.5	2.1	102.4	4.6	1

STATION 23 DATE 16 7 1928 LAT 61 14.0 N LONG 0 30.0 E



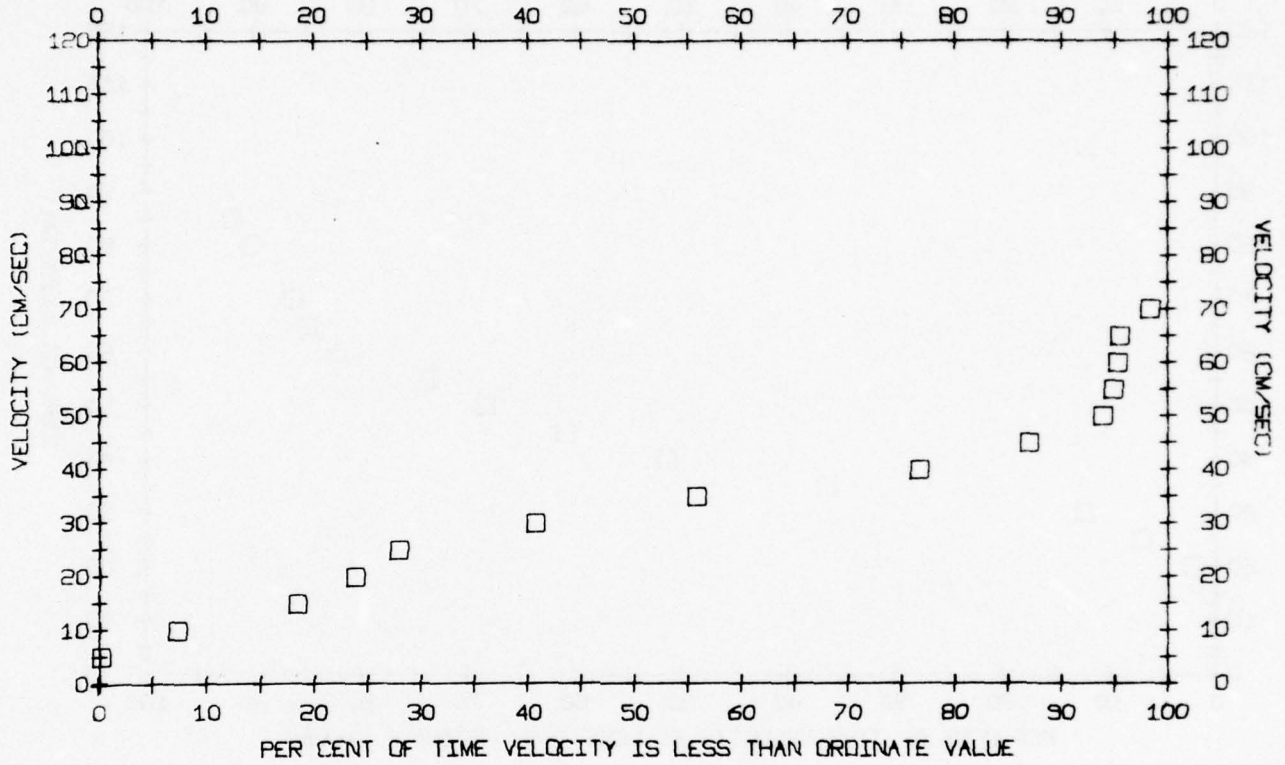
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
	10	19	36	28.7	6.4	69.3	26.3	5
	20	9	22	14.8	5.2	107.4	14.7	4
	30	11	22	15.7	5.7	97.9	15.3	2
	40	8	14	11.0	3.0	131.9	10.7	2
	60	11	25	17.3	7.1	143.2	14.2	2
	80	11	15	13.0	2.0	48.4	12.8	2
	100	10	14	11.7	2.1	358.1	10.3	2

STATION 24 DATE 3 7 1979 LAT 59 12.5 N LONG -9 5.0 W



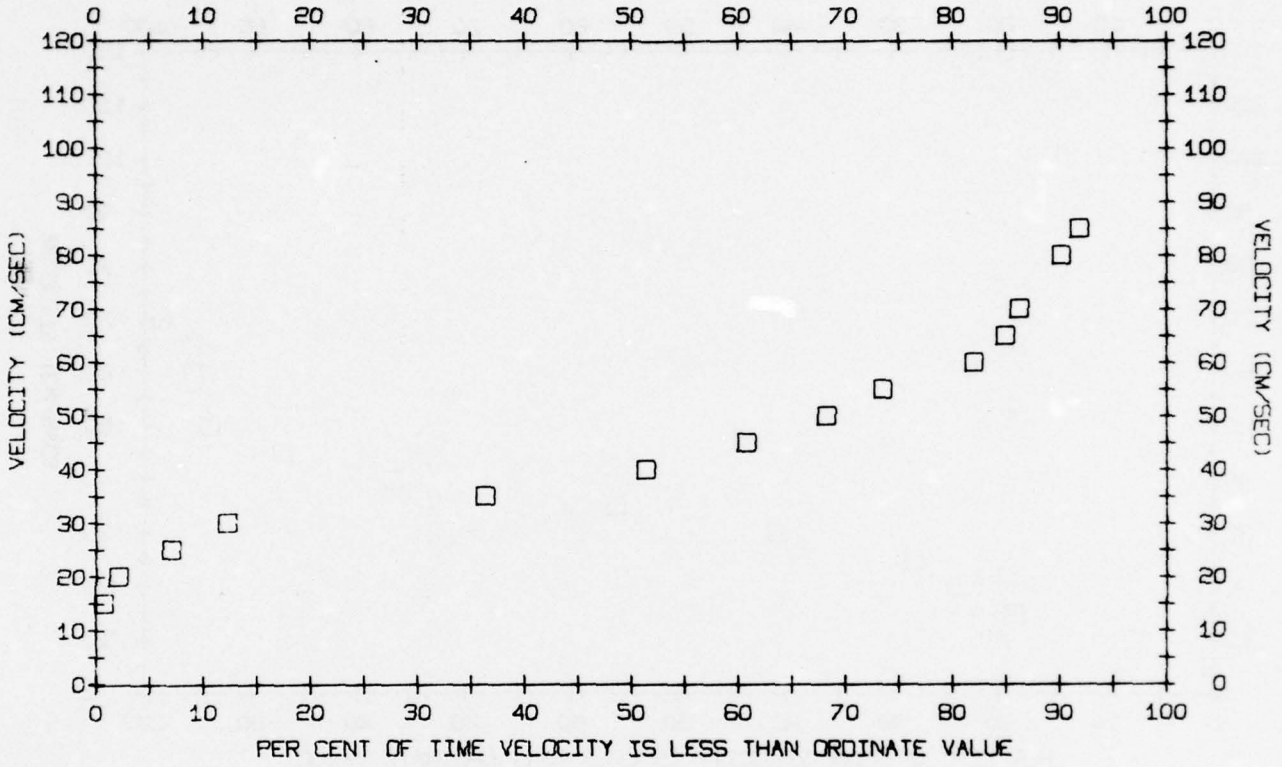
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	2	37	20.4	8.8	219.4	15.9	57
	25	2	70	18.8	15.3	257.7	11.7	17
×	50	9	43	30.0	7.9	60.7	25.1	94
	100	10	14	12.0	1.9	111.3	11.7	4
	150	6	19	14.4	5.7	118.4	14.2	4
	200	5	15	10.8	4.3	131.9	10.7	3

STATION 25 DATE 9 7 1929 LAT 60 32.0 N LONG 0 27.0 E



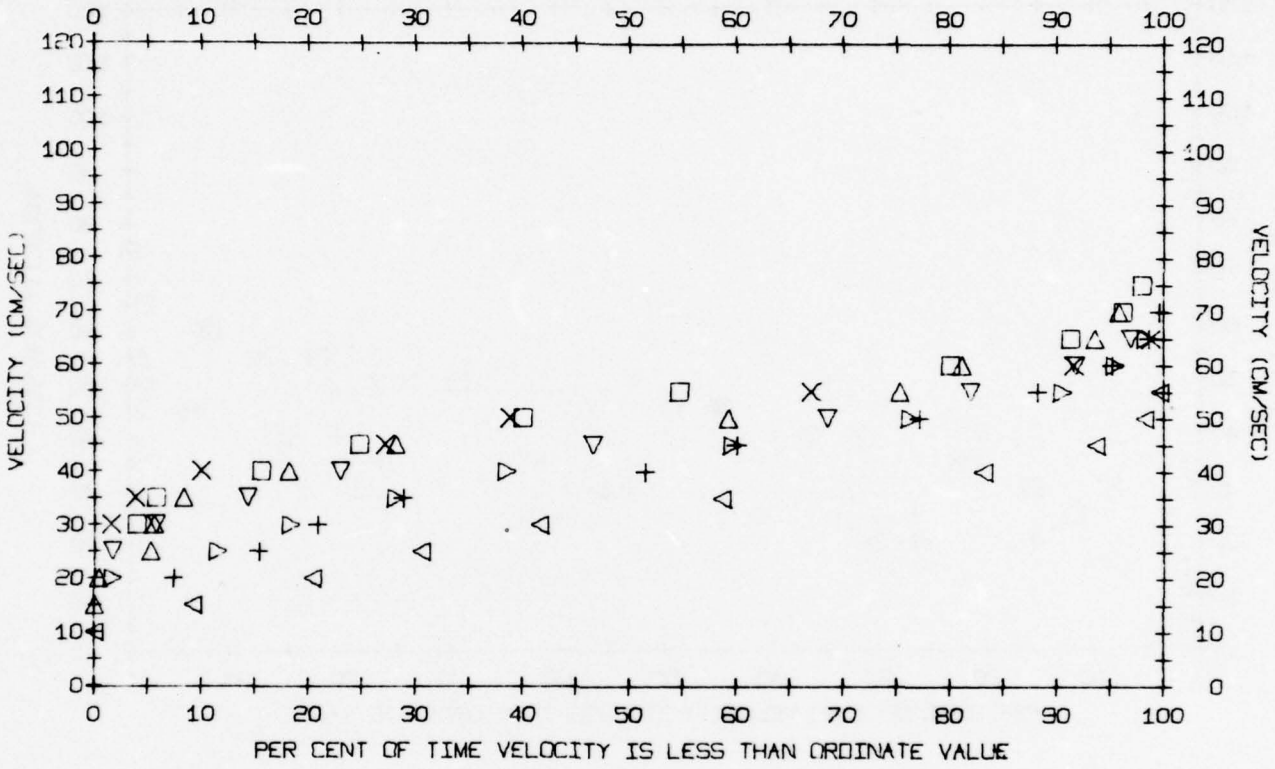
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	0	73	30.7	15.3	61.1	6.7	60
	25	5	44	25.3	12.0	70.2	9.2	14

STATION 26 DATE 12 7 1929 LAT 60 38.0 N LONG 4 31.0 E



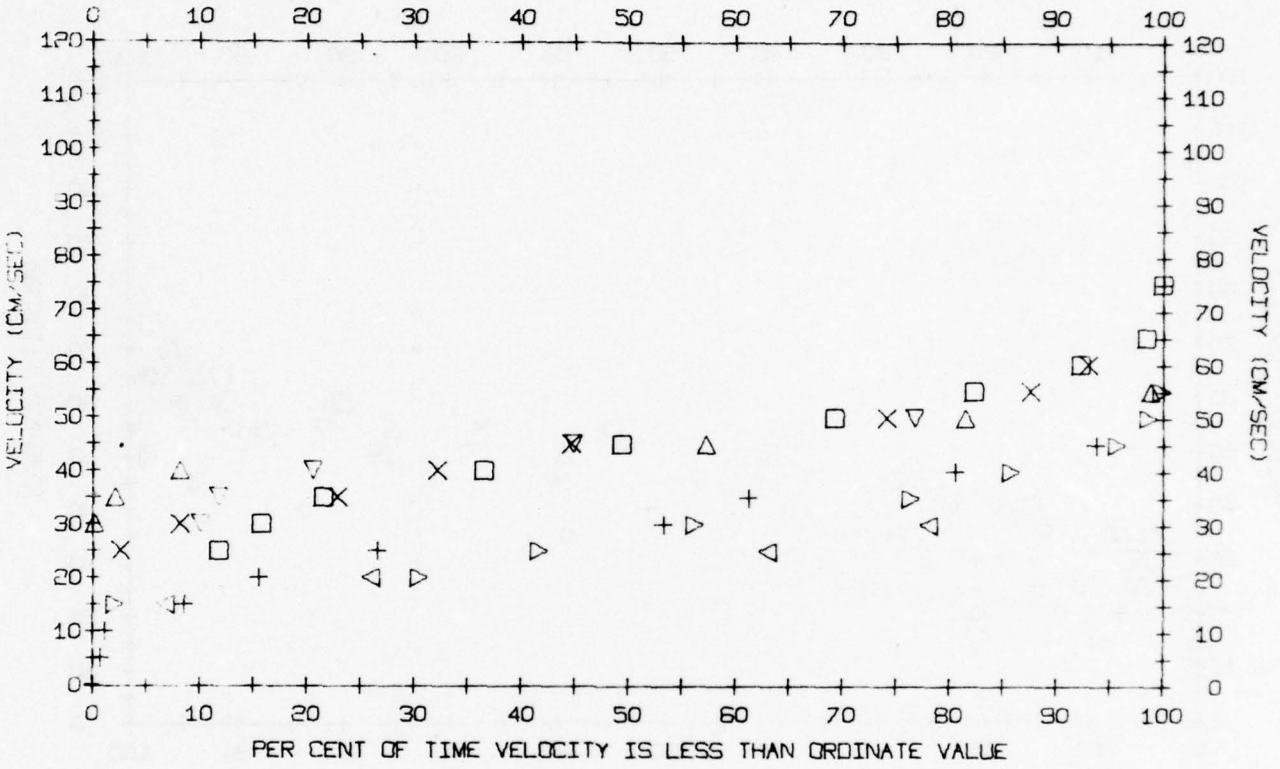
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	12	88	40.7	17.1	3.0	34.1	43
	25	41	63	52.4	8.1	354.1	46.5	7
	50	21	71	42.9	14.3	353.1	40.7	15
	100	49	57	52.7	2.9	338.4	52.6	5
	200	45	64	59.8	8.3	348.1	59.8	4

STATION 27 DATE 28 8 1960 LAT 61 12.0 N LONG -2 2.0 W



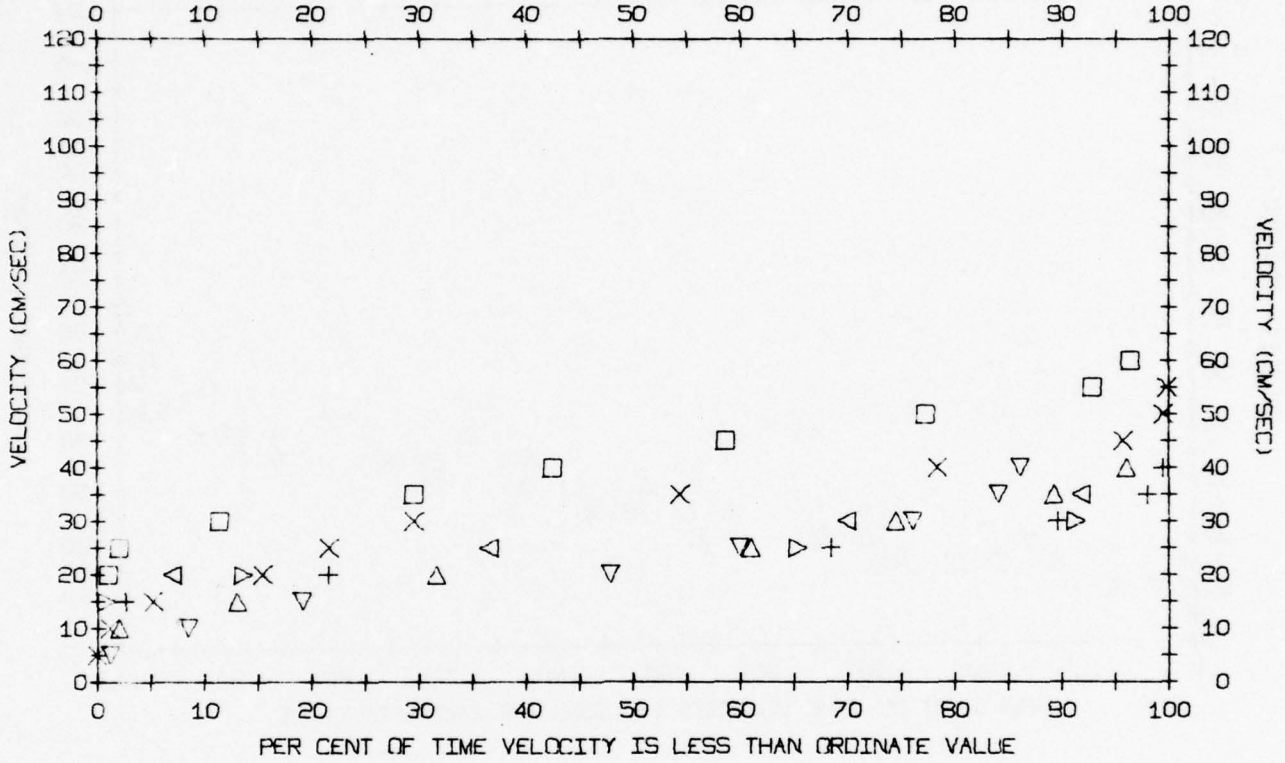
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	26	78	52.0	10.3	37.5	50.5	81
×	25	26	66	50.3	7.9	45.4	49.1	79
△	50	15	70	47.5	10.6	51.3	44.0	64
▽	100	21	69	45.8	10.0	44.4	43.6	68
+	200	17	70	40.3	13.2	53.4	35.1	63
▷	300	18	69	41.0	12.0	29.7	39.9	65
◁	400	10	55	30.3	11.0	55.7	27.8	68

STATION 28 DATE 29 8 1960 LAT 61 21.0 N LONG -3 11.0 W



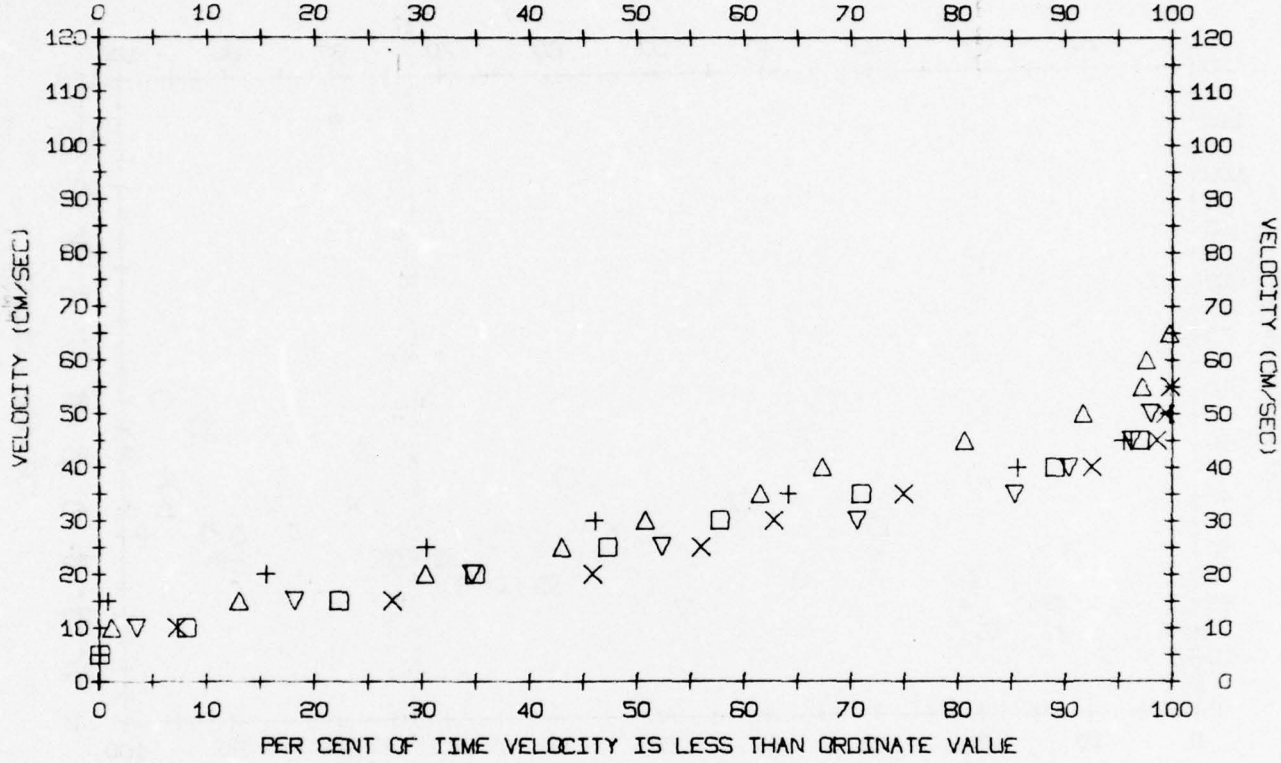
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	21	75	45.8	11.9	238.6	41.6	54
X	25	21	62	44.7	9.1	245.2	41.7	53
△	50	27	58	45.3	5.7	242.3	44.5	38
▽	100	21	54	44.0	7.5	242.6	42.9	38
+	200	4	49	30.5	10.4	235.7	28.1	68
▷	300	14	55	28.1	10.2	238.5	27.0	68
◁	400	13	33	23.0	6.0	244.8	20.4	65

STATION 29 DATE 31 8 1960 LAT 61 32.0 N LONG -4 33.0 W



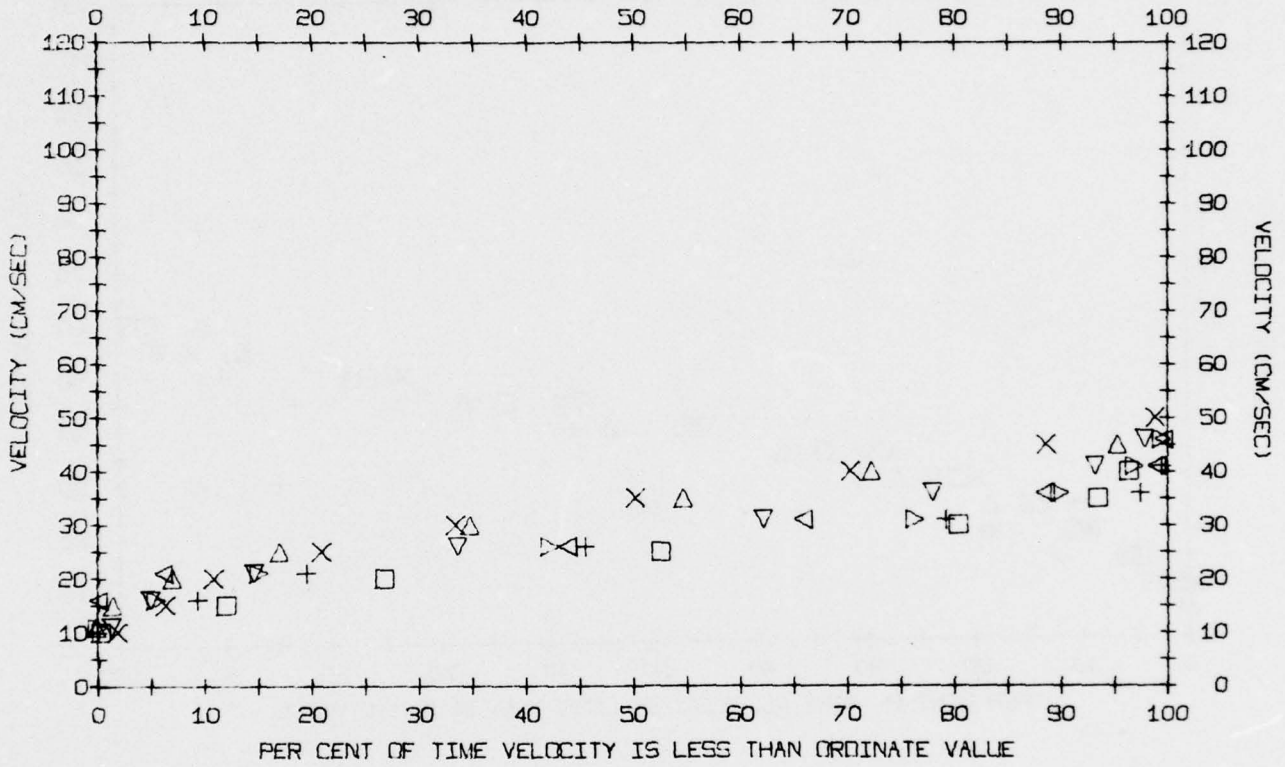
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	17	63	40.4	10.2	146.9	8.3	81
×	25	5	56	32.4	10.1	125.8	8.8	79
△	50	8	42	23.3	7.8	186.7	13.5	49
▽	100	3	44	20.5	8.8	177.9	11.5	51
+	200	12	40	23.1	5.1	170.6	11.4	118
▷	300	12	33	23.6	4.4	180.2	15.8	105
◁	400	16	38	26.8	5.1	211.3	23.0	106

STATION 30 DATE 1 9 1960 LAT 61 34.0 N LONG -4 49.0 W



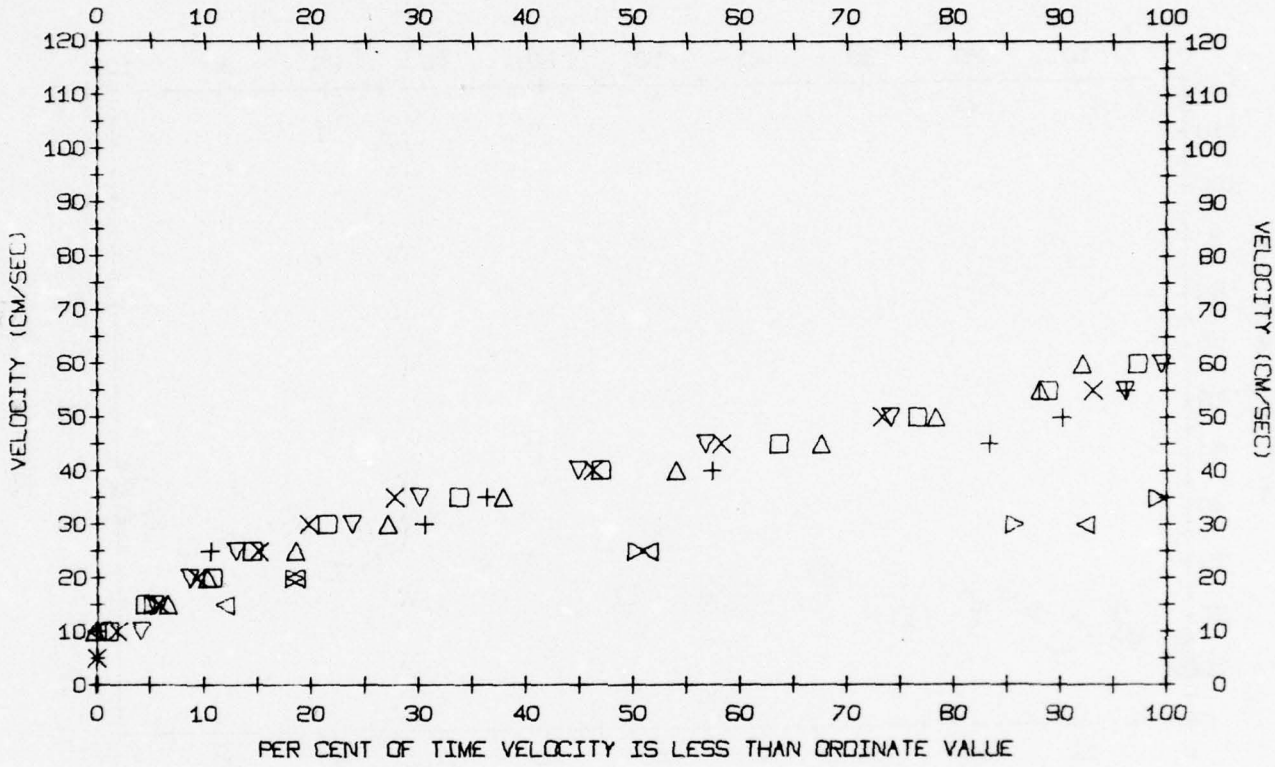
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	5	46	26.0	11.7	195.0	19.3	75
×	25	7	56	25.4	11.6	186.3	19.9	72
△	50	9	68	30.3	14.4	182.3	20.4	63
▽	100	8	53	24.9	9.4	195.4	16.9	75
+	200	12	53	30.6	8.4	175.4	17.9	337

STATION 31 DATE 2 9 1960 LAT 61 31.0 N LONG -4 27.0 W



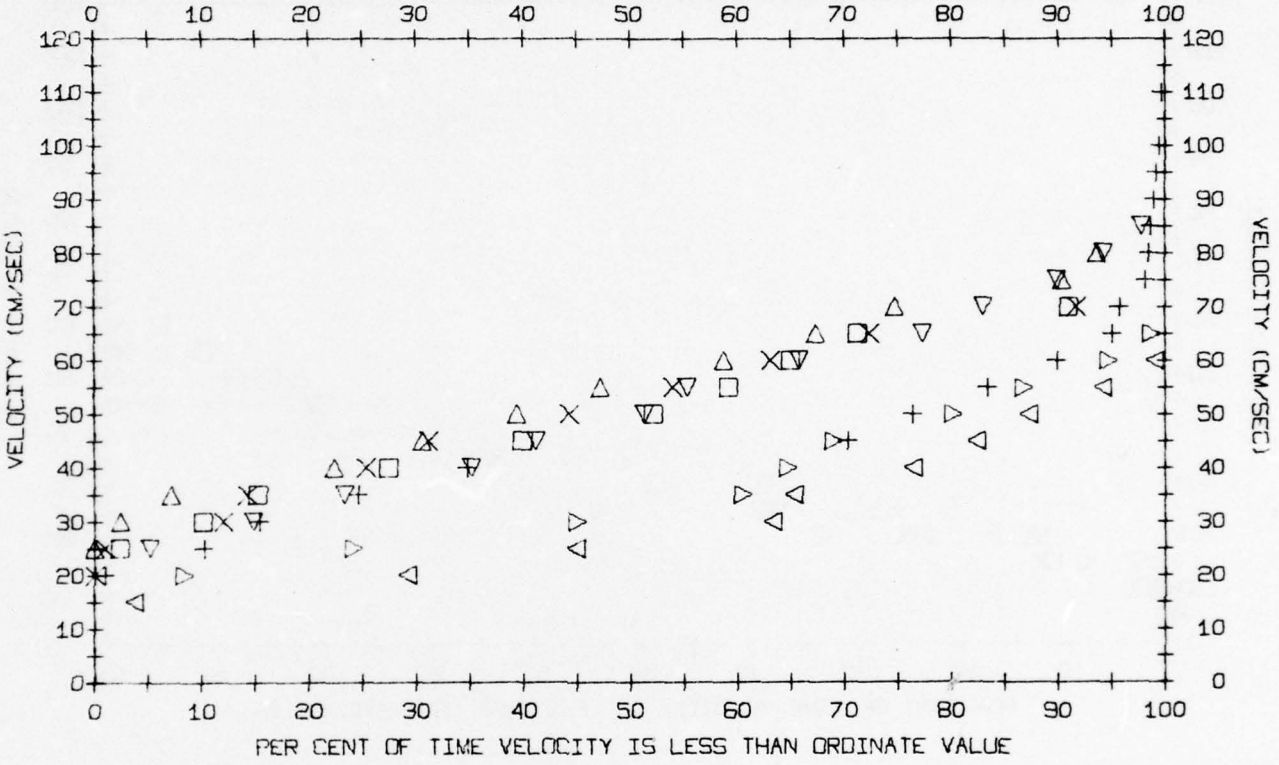
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	7	43	23.5	7.7	197.5	2.2	79
×	25	8	52	31.2	10.6	145.6	6.2	81
△	50	10	48	32.2	9.0	193.1	17.6	70
▽	100	9	47	27.7	8.1	180.6	16.7	69
+	200	11	42	24.4	6.2	186.2	12.5	92
▷	300	10	46	25.6	6.5	187.1	10.5	83
◁	400	13	46	28.2	6.1	145.4	3.6	106

STATION 32 DATE 5 9 1960 LAT 61 19.0 N LONG -2 47.0 W



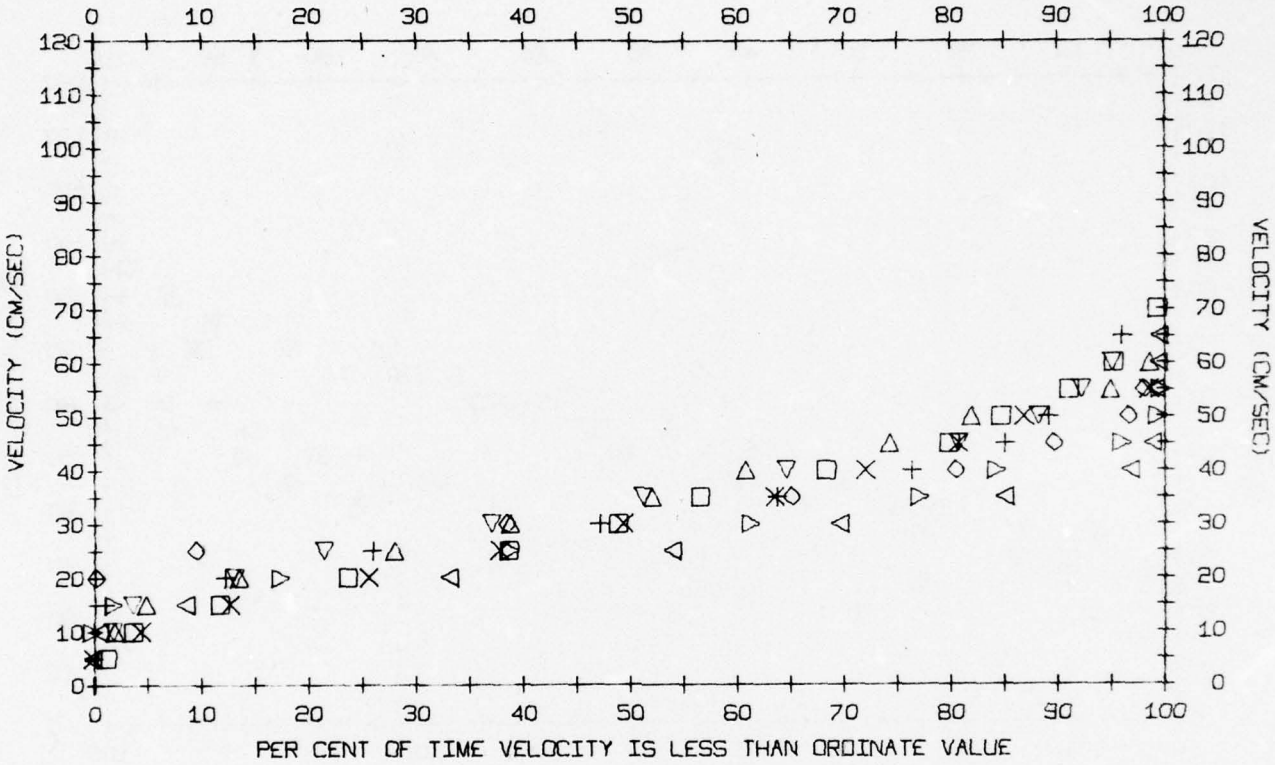
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	6	60	38.4	12.5	98.7	18.1	86
×	25	5	59	38.6	12.7	97.1	18.0	85
△	50	10	61	35.6	12.7	104.1	22.4	71
▽	100	9	64	37.0	11.6	85.8	22.3	96
+	200	21	59	36.6	9.4	87.8	11.1	112
▷	300	13	38	24.2	5.4	51.5	5.6	88
◁	400	10	31	23.1	5.5	317.4	4.1	97

STATION 33 DATE 7 9 1960 LAT 61 16.0 N LONG -2 26.0 W



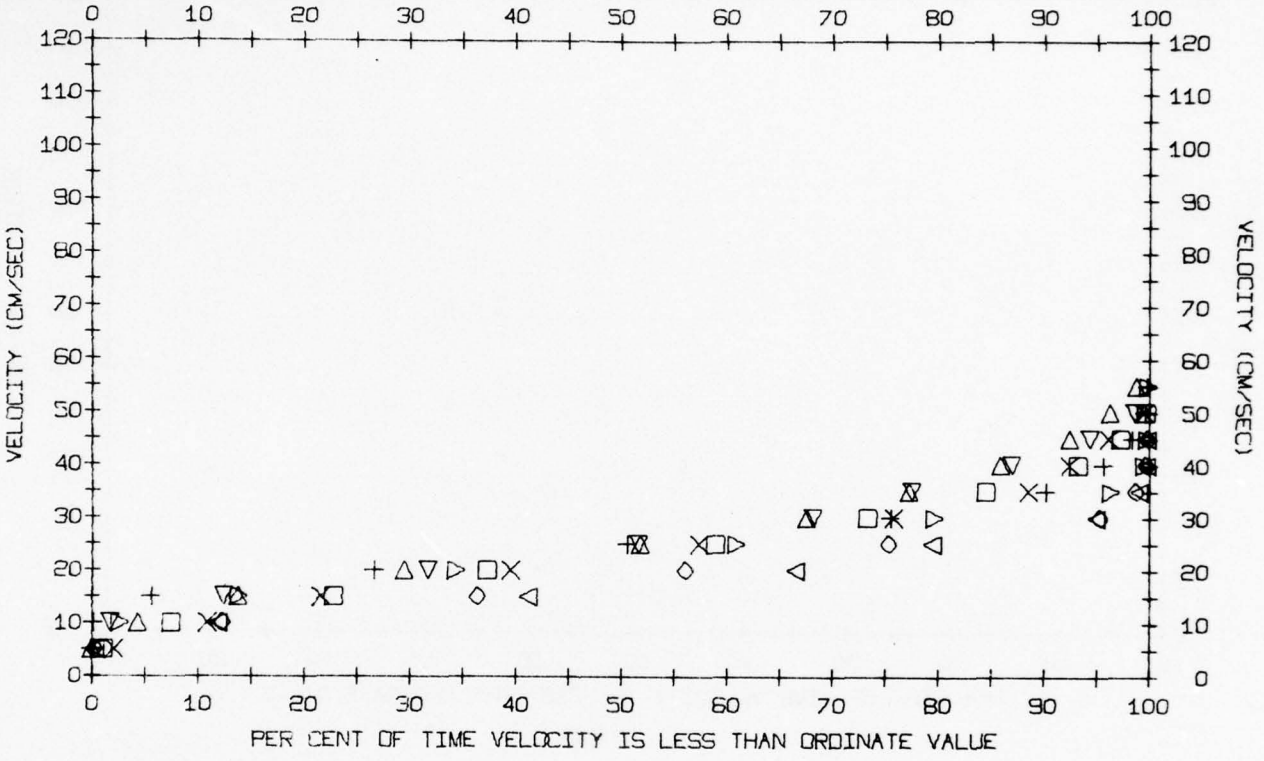
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	21	74	49.1	15.0	25.7	45.6	71
×	25	20	74	50.8	14.3	21.3	47.7	70
△	50	19	80	53.6	15.8	10.9	52.5	67
▽	100	23	86	49.7	18.0	10.7	46.8	69
+	200	18	110	42.3	15.7	32.3	32.5	99
▷	300	16	67	35.5	13.9	5.1	31.1	93
◁	400	11	62	29.4	12.9	12.5	22.5	91

STATION 34 DATE 1 7 1961 LAT 61 9.0 N LONG -2 23.0 W



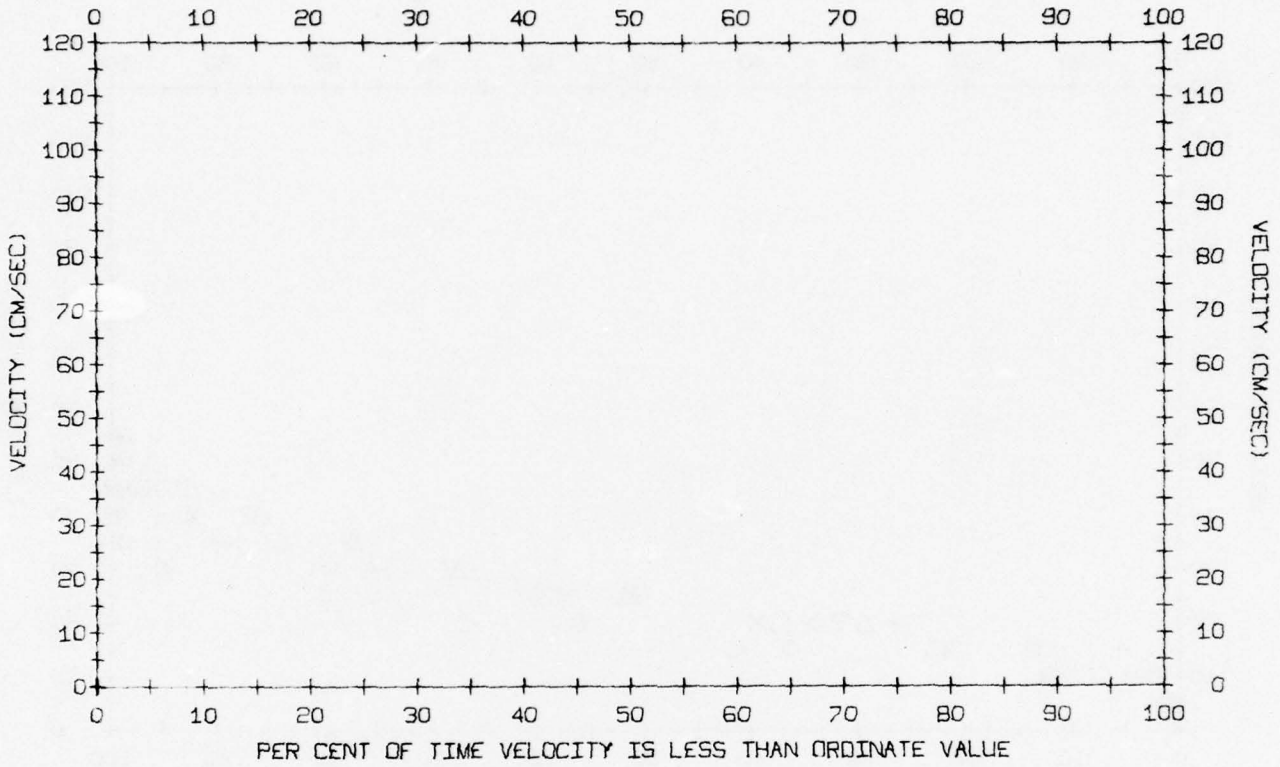
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	2	70	31.1	14.2	34.5	15.8	152
X	25	5	58	29.8	13.4	18.6	18.2	149
△	50	6	63	34.3	13.3	13.4	22.7	114
▽	100	8	62	33.4	12.5	14.3	21.3	118
+	200	11	65	31.8	10.4	28.9	24.9	393
▷	300	9	57	28.0	8.6	9.1	18.3	377
◁	400	2	66	24.7	8.9	355.2	17.8	307
◇	470	17	56	32.7	8.0	315.9	22.6	220

STATION 35 DATE 6 7 1961 LAT 61 9.0 N LONG -2 23.0 W



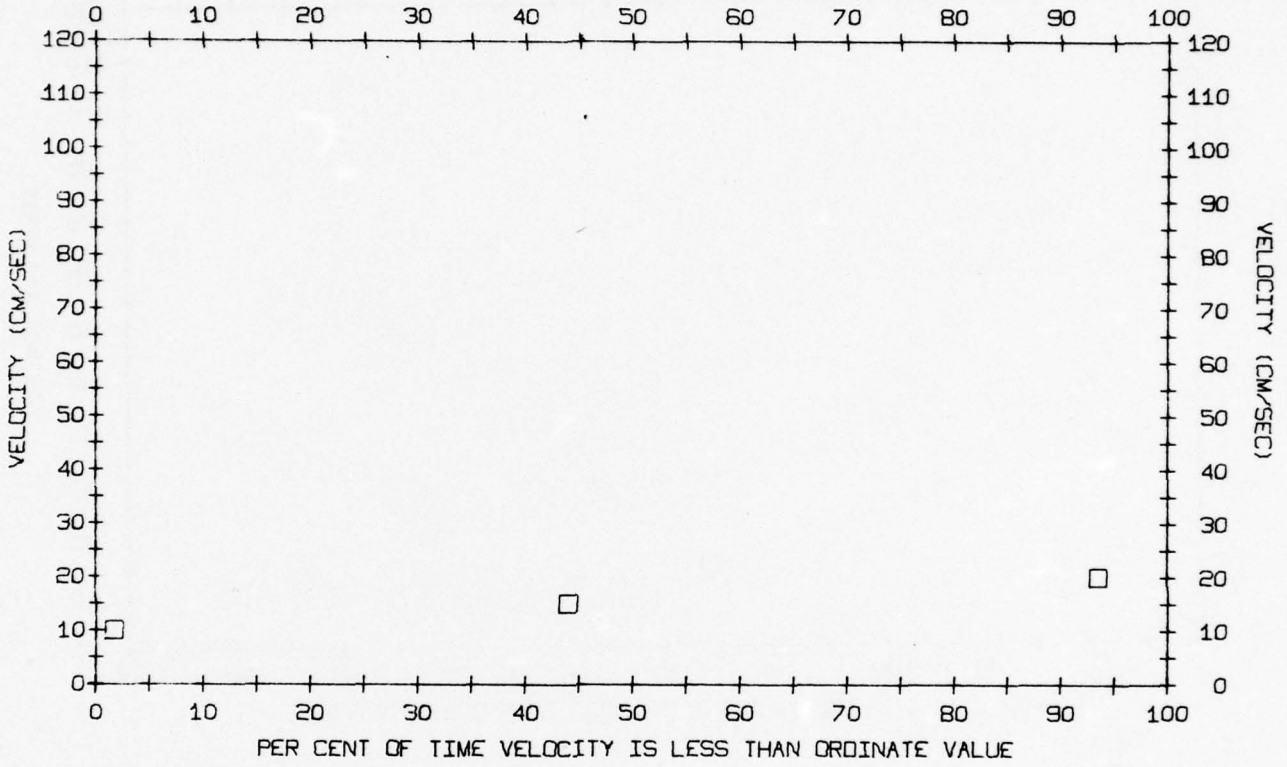
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	2	51	23.2	10.3	84.0	8.5	564
×	25	2	53	23.0	10.2	72.8	8.5	563
△	50	5	56	25.9	10.9	56.8	8.6	407
▽	100	7	53	25.8	10.1	43.0	5.1	406
+	200	4	58	24.8	7.6	114.3	8.1	1087
▷	300	7	55	22.6	7.2	107.4	6.6	955
◁	400	3	45	17.4	7.2	174.1	6.0	745
◇	500	4	46	18.3	7.6	242.7	4.0	723

STATION 36 DATE 16 7 1961 LAT 61 4.0 N LONG -1 45.0 W



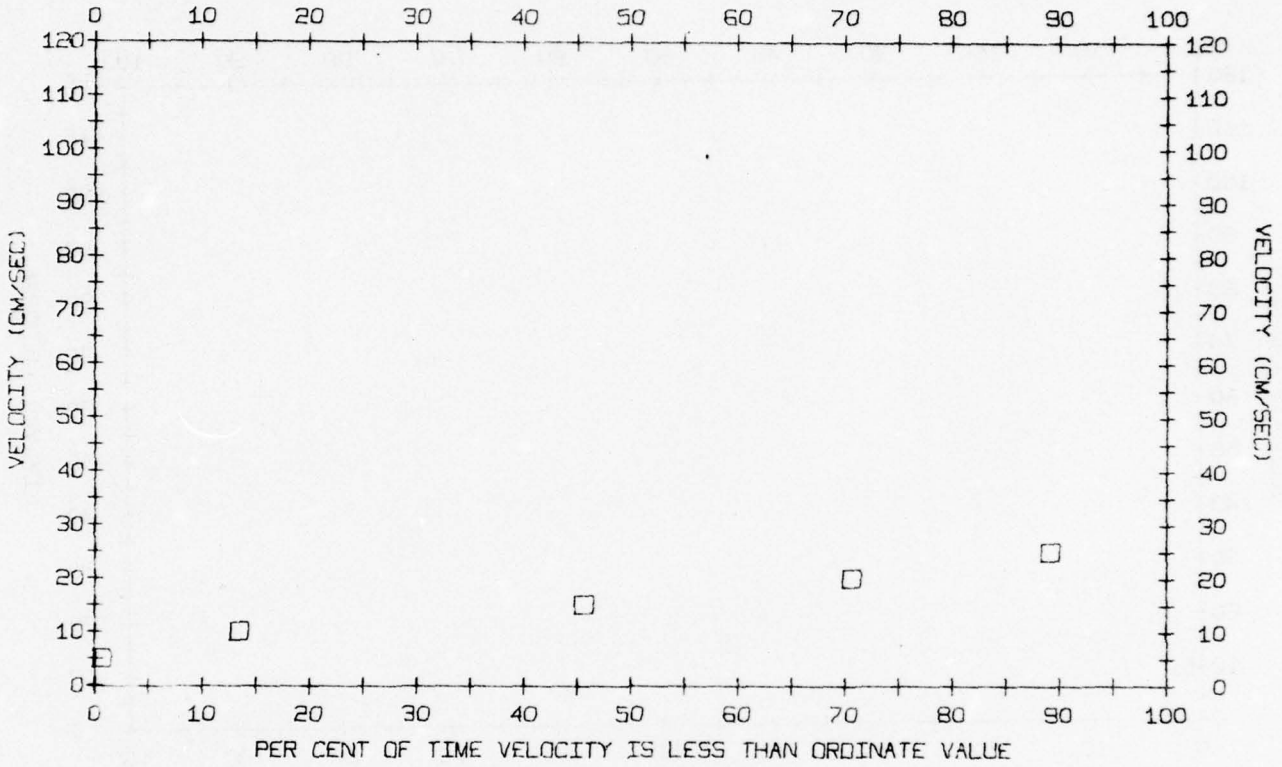
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
	33	9	24	16.5	5.0	69.0	14.5	16

STATION 37 DATE 16 7 1961 LAT 61 4.0 N LONG -1 38.0 W



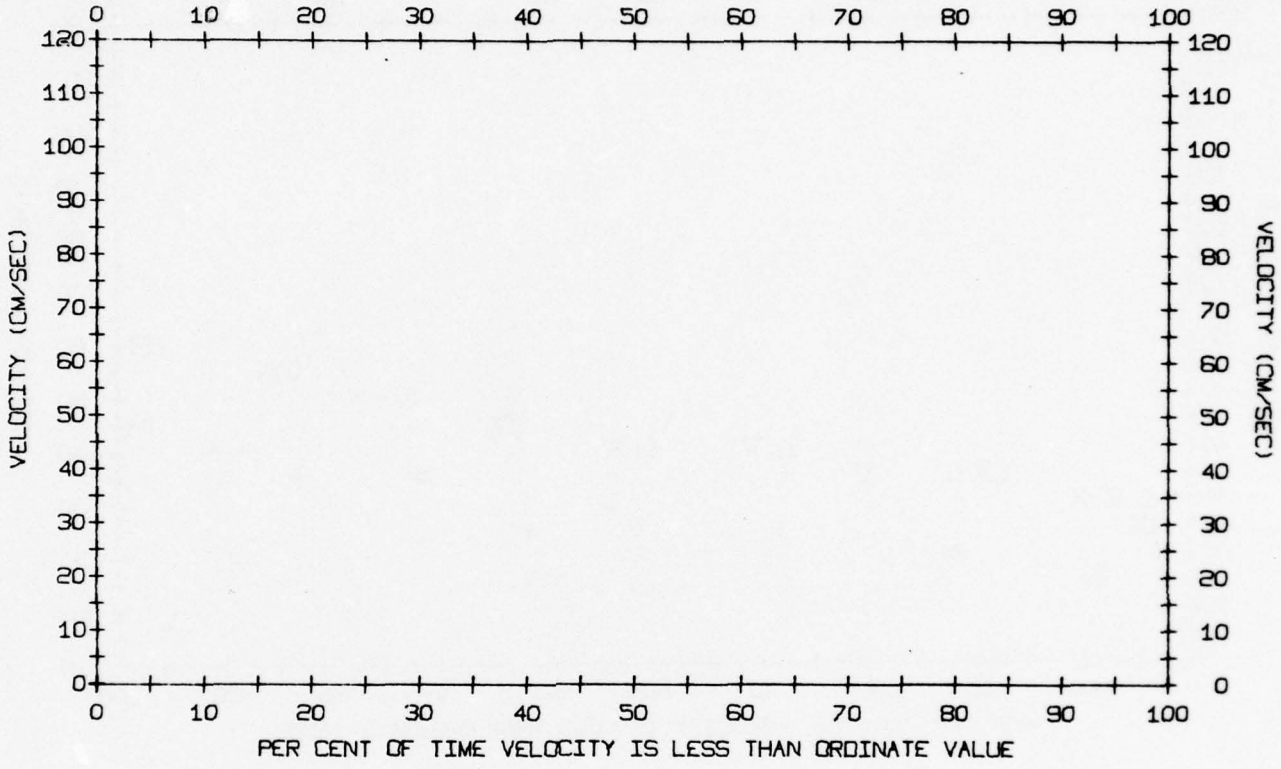
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	28	9	22	14.6	3.0	233.3	11.5	56

STATION 38 DATE 17 7 1961 LAT 61 4.0 N LONG -1 31.0 W



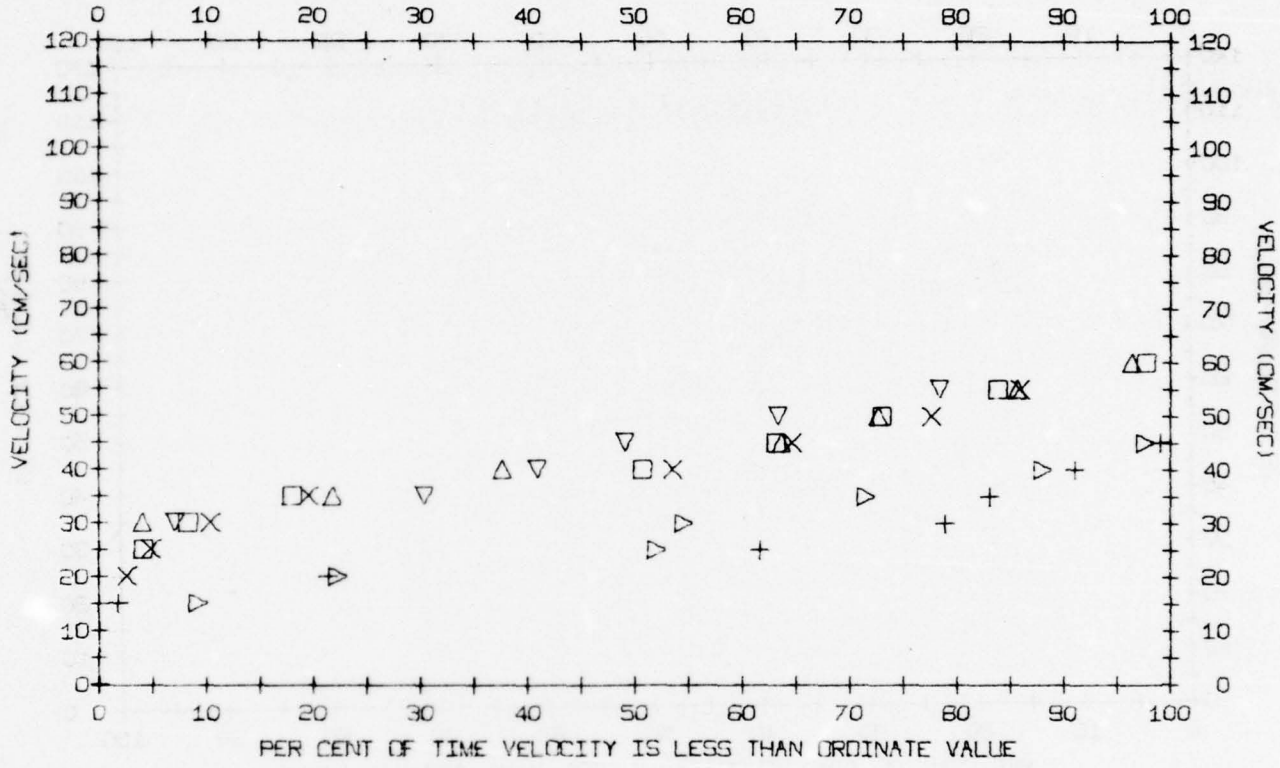
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	33	4	28	16.5	6.5	242.9	15.3	47

STATION 39 DATE 17 7 1961 LAT 60 58.0 N LONG -1 24.0 W



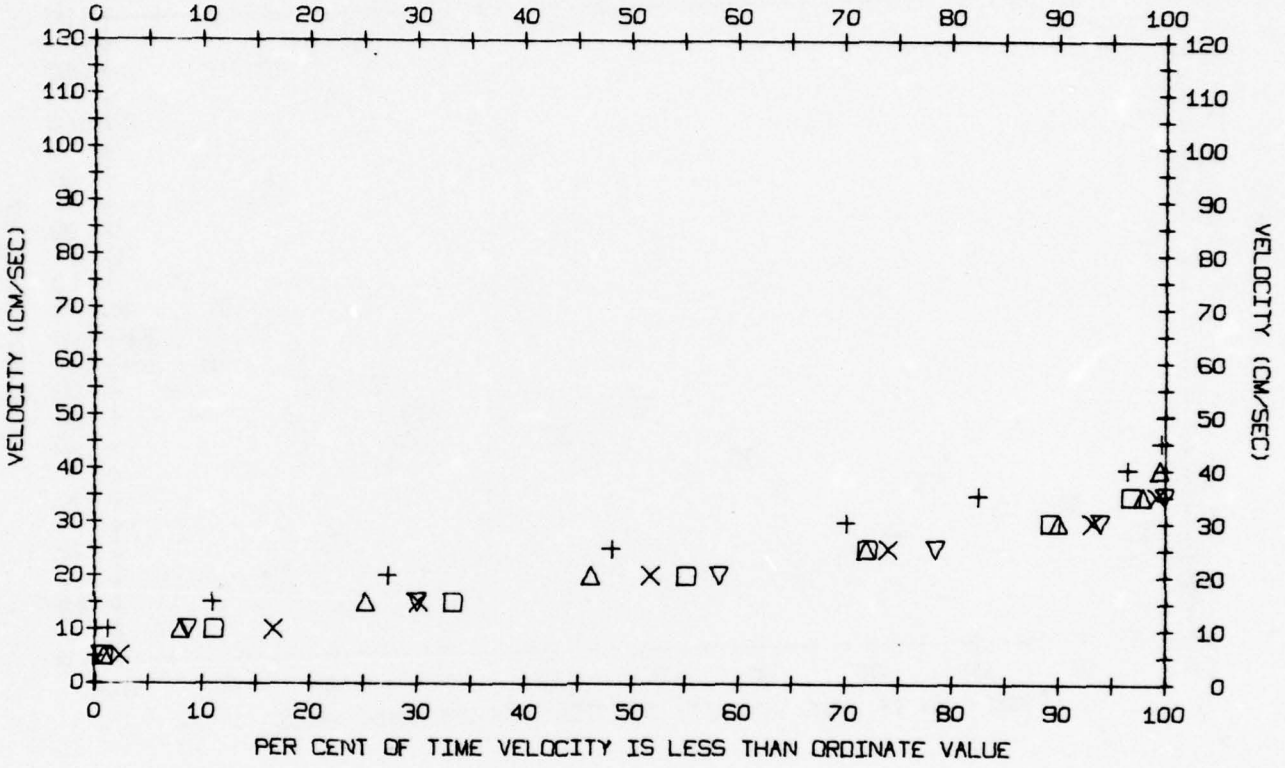
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
	33	25	40	31.5	4.8	108.4	30.7	18

STATION 40 DATE 29 7 1961 LAT 61 9.0 N LONG -2 23.0 W



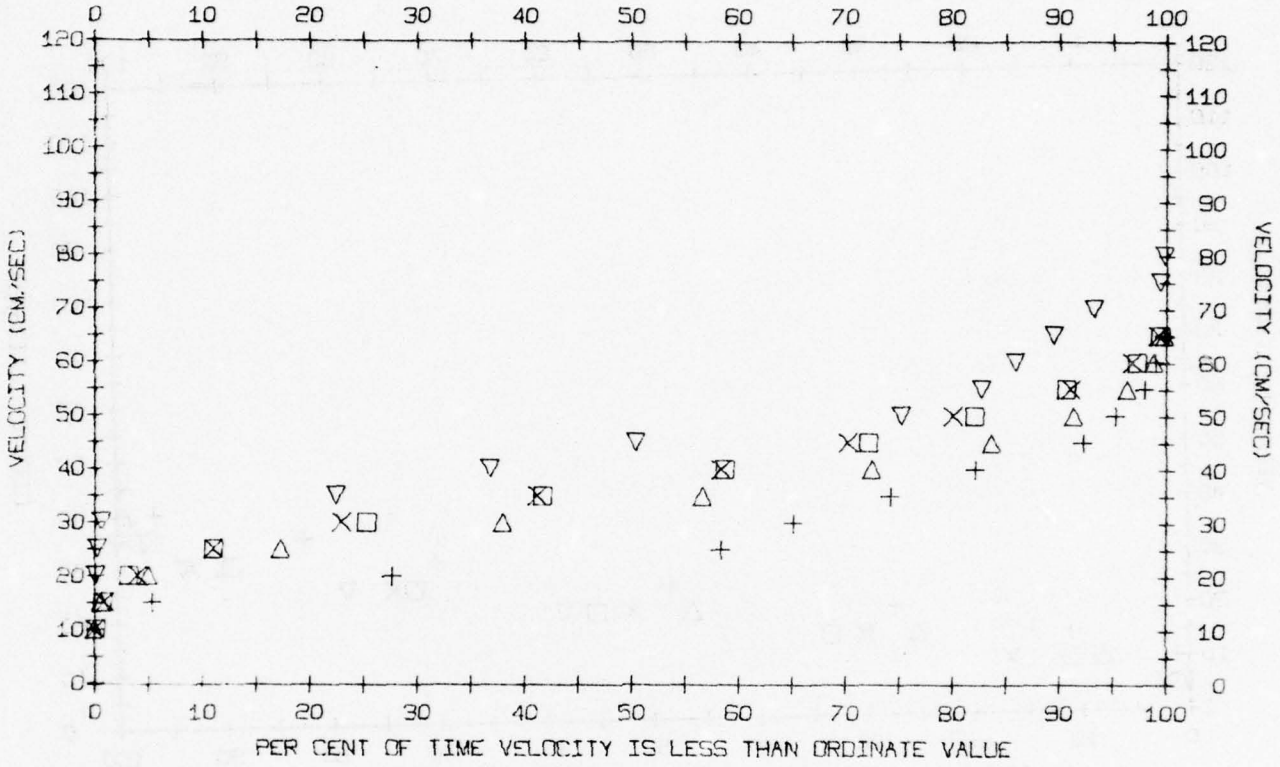
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	18	60	42.0	10.0	52.9	35.9	44
×	25	16	59	40.4	10.2	46.7	31.8	46
△	50	27	60	42.6	9.6	55.3	34.3	24
▽	100	29	56	42.9	9.6	55.6	29.7	22
+	300	14	47	25.4	8.2	43.1	18.3	132
▷	400	13	46	28.1	10.2	25.0	24.8	75

STATION 41 DATE 2 8 1961 LAT 61 9.0 N LONG -2 23.0 W



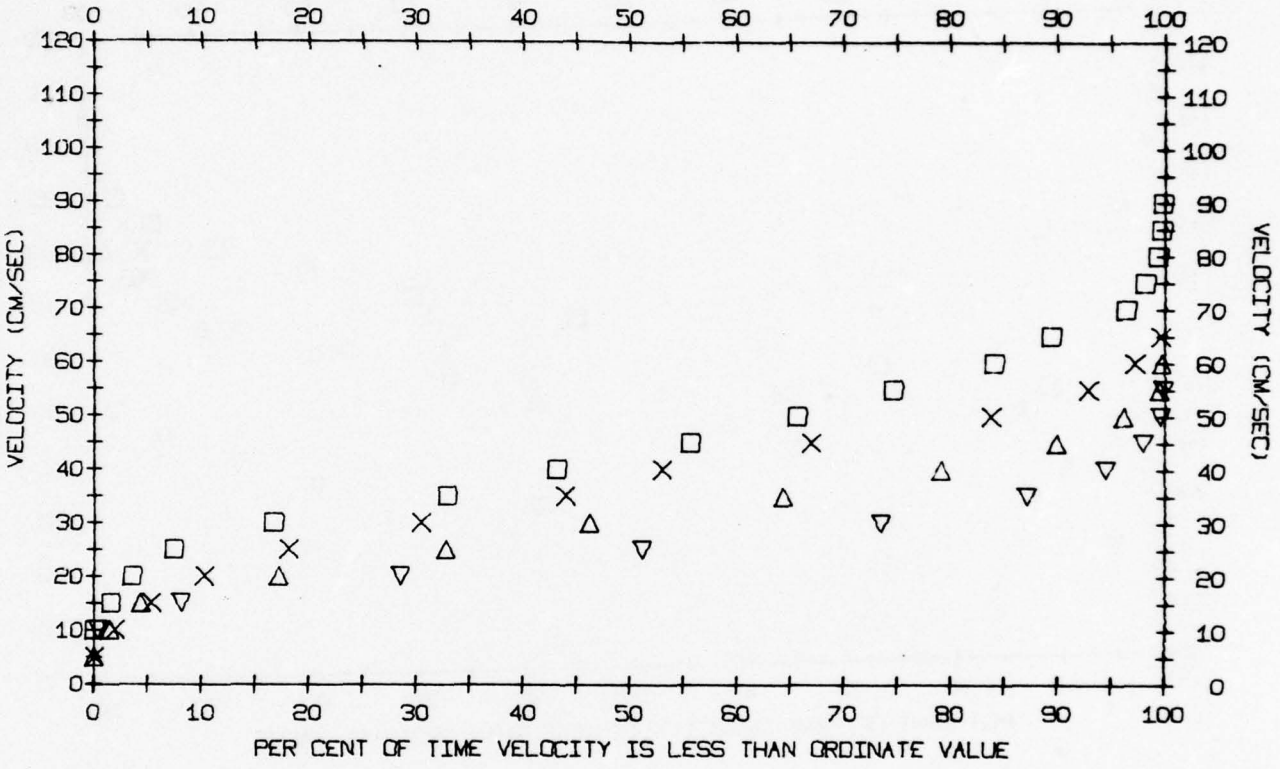
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	4	38	19.7	7.8	36.4	4.0	284
×	25	2	38	19.2	7.9	15.3	5.3	287
△	50	3	40	20.3	7.1	9.4	7.9	223
▽	100	4	35	18.9	6.8	347.8	7.9	223
+	450	7	54	25.2	8.4	290.6	8.7	1110

STATION 42 DATE 7 12 1961 LAT 61 9.0 N LONG -2 23.0 W



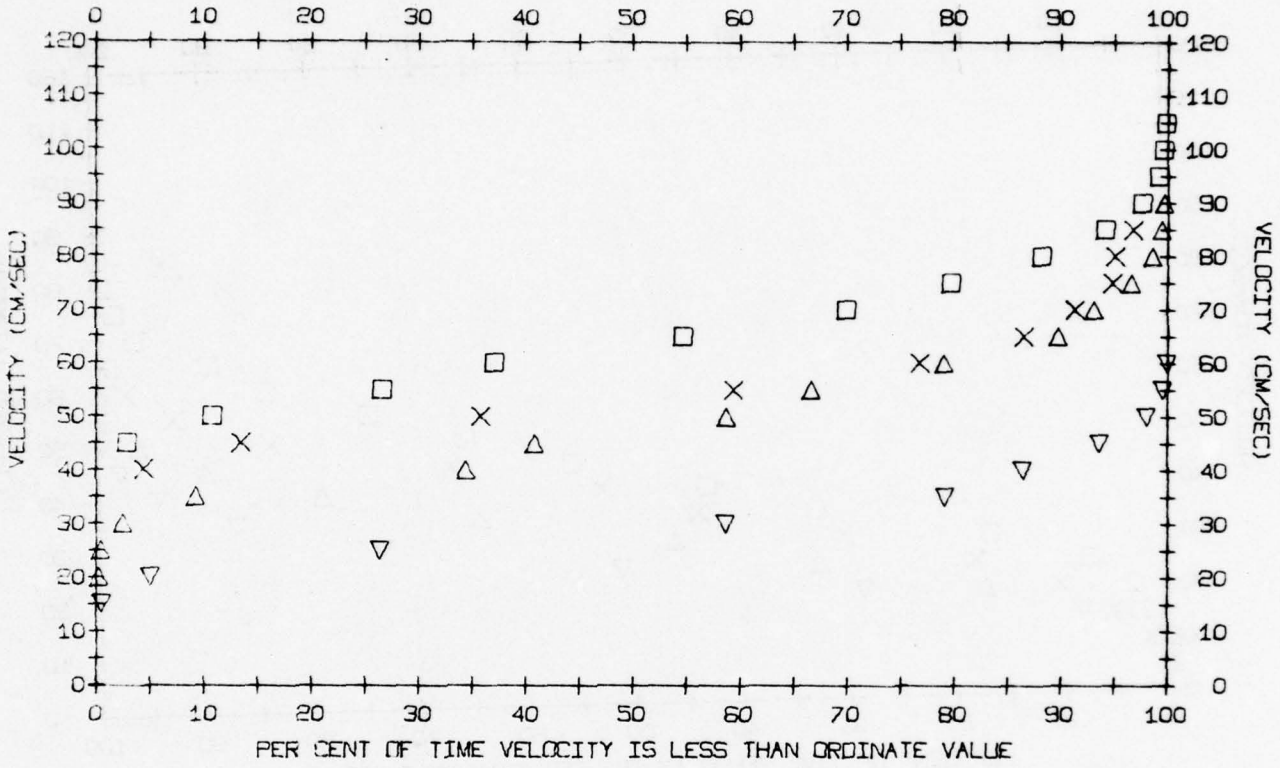
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	9	69	37.4	11.1	84.5	33.9	454
×	25	7	66	37.5	11.5	83.8	35.0	452
△	50	8	66	33.4	10.1	77.0	30.2	1513
	100	47	59	52.5	4.3	96.7	52.1	5
▽	200	18	81	46.8	12.2	79.2	46.5	195
+	400	11	65	26.9	11.0	68.7	24.3	239
	500	8	12	9.7	1.2	41.3	8.1	16

STATION 43 DATE 6 5 1962 LAT 61 19.0 N LONG -3 15.0 W



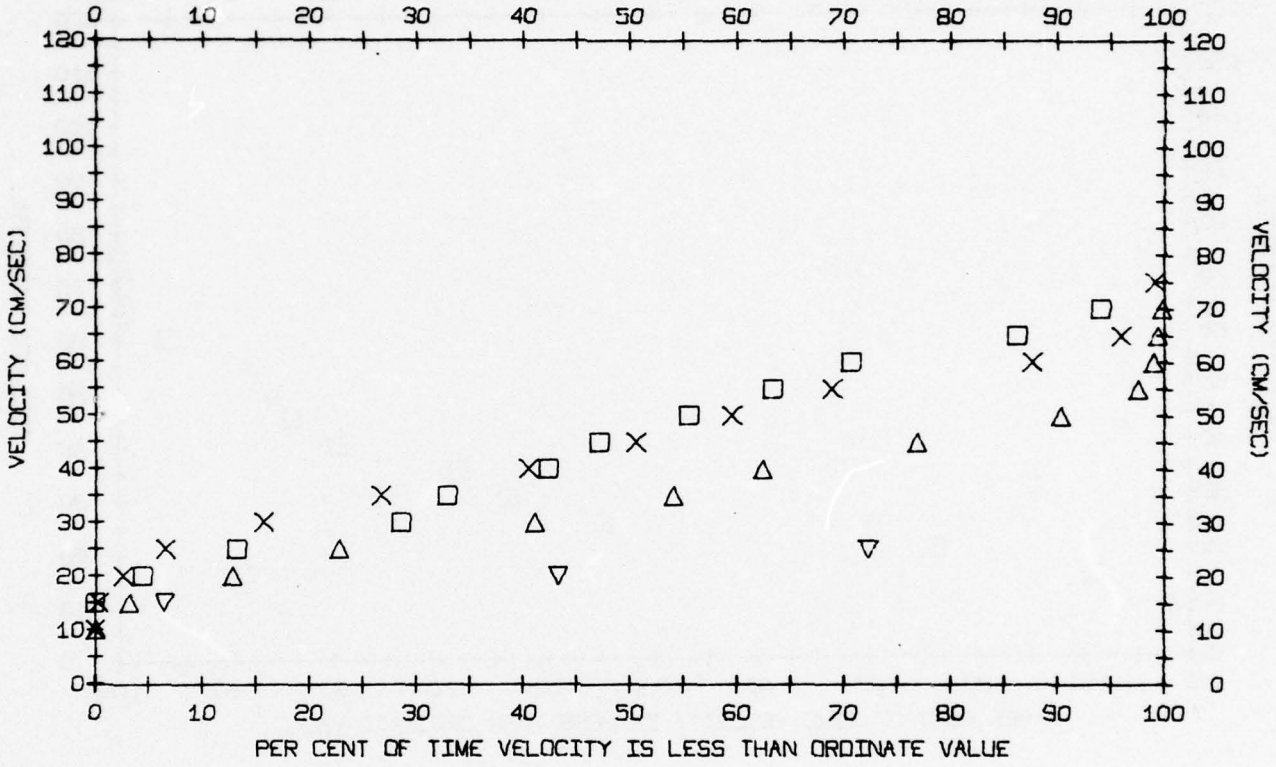
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	50	7	91	43.1	14.9	183.4	33.8	1536
×	100	5	67	37.7	12.6	182.6	29.7	584
△	200	5	60	30.7	10.4	182.1	25.6	362
▽	300	7	59	25.4	8.2	179.2	19.6	1175

STATION 44 DATE 27 5 1962 LAT 61 8.0 N LONG -2 12.0 W



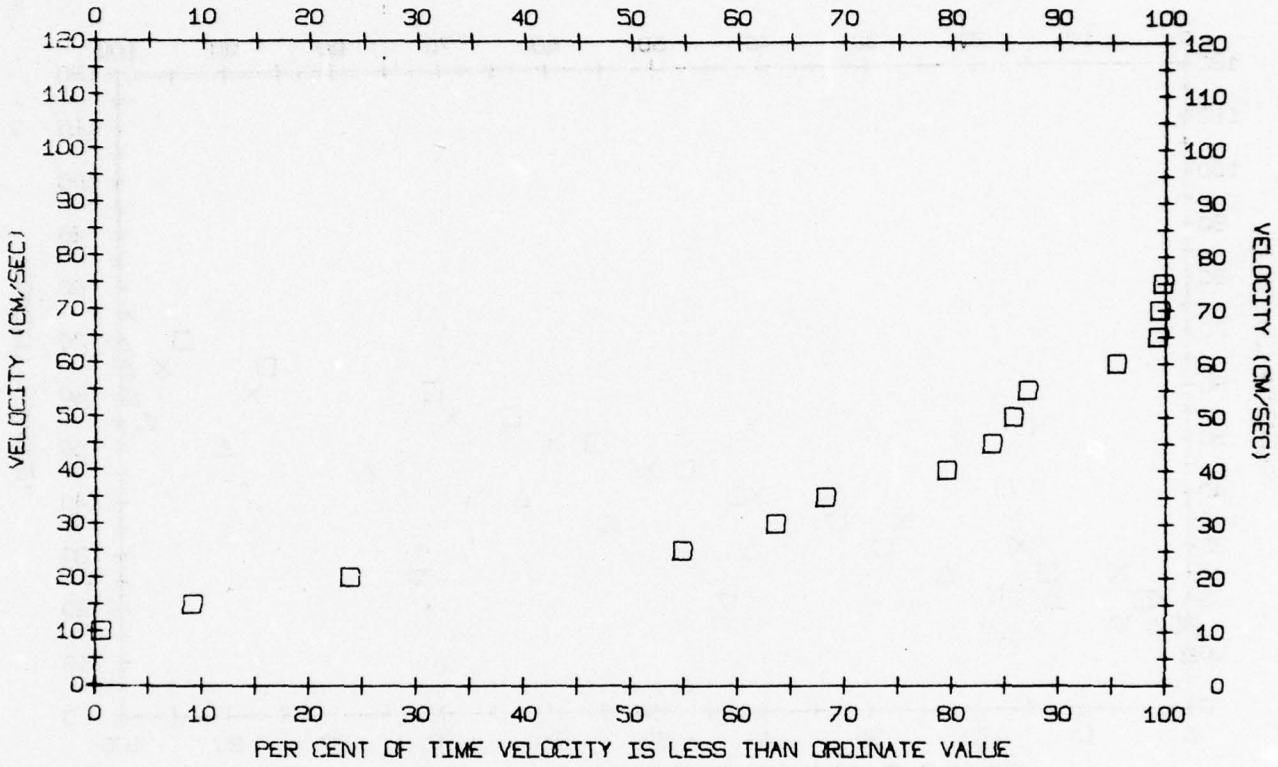
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	100	42	108	68.4	13.0	59.0	67.1	344
×	200	37	87	53.6	9.7	54.7	52.2	122
△	300	14	93	48.8	13.3	63.4	48.1	388
▽	500	11	63	30.1	8.5	46.6	24.9	577

STATION 45 DATE 3 6 1962 LAT 61 30.0 N LONG -4 12.0 W



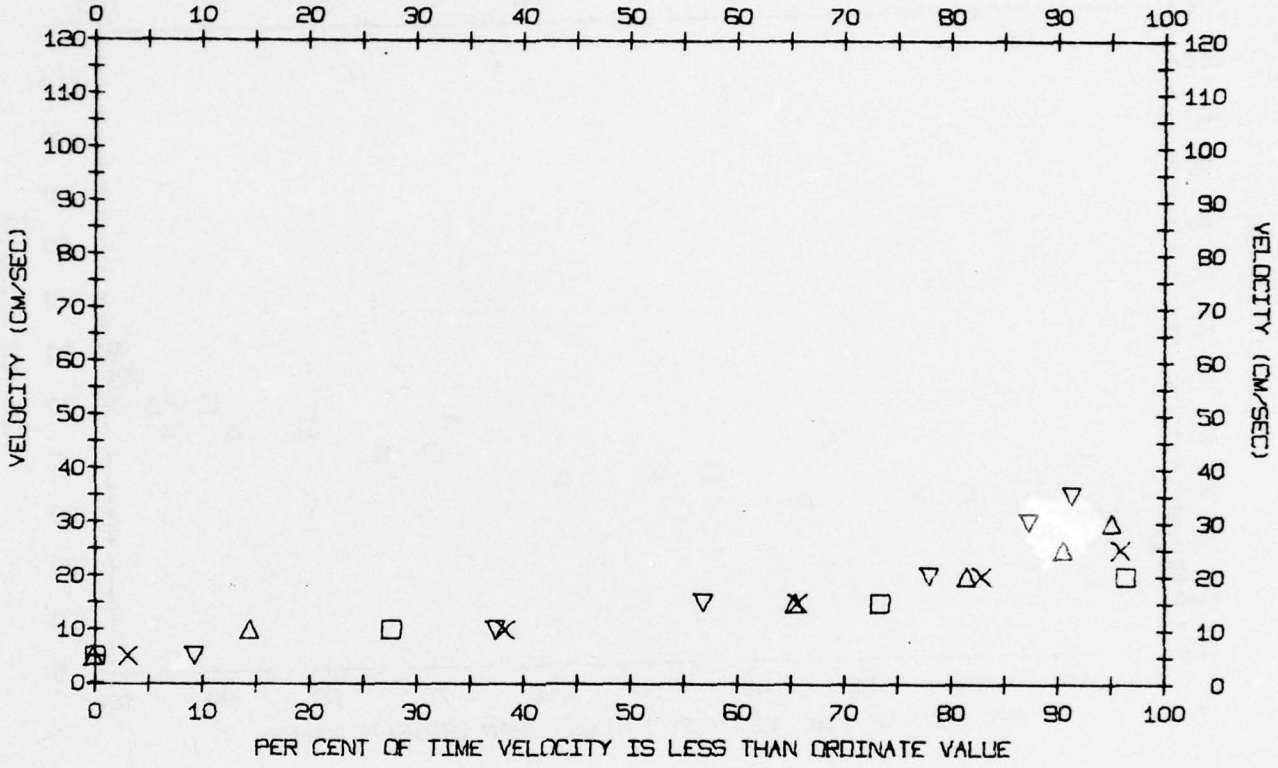
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	100	15	74	46.2	17.0	214.0	42.7	162
×	200	10	78	43.2	13.8	206.7	38.5	111
△	300	9	74	33.6	12.3	222.6	21.0	455
▽	500	12	28	20.1	4.5	256.7	8.4	86

STATION 46 DATE 21 3 1963 LAT 61 9.0 N LONG -2 23.0 W



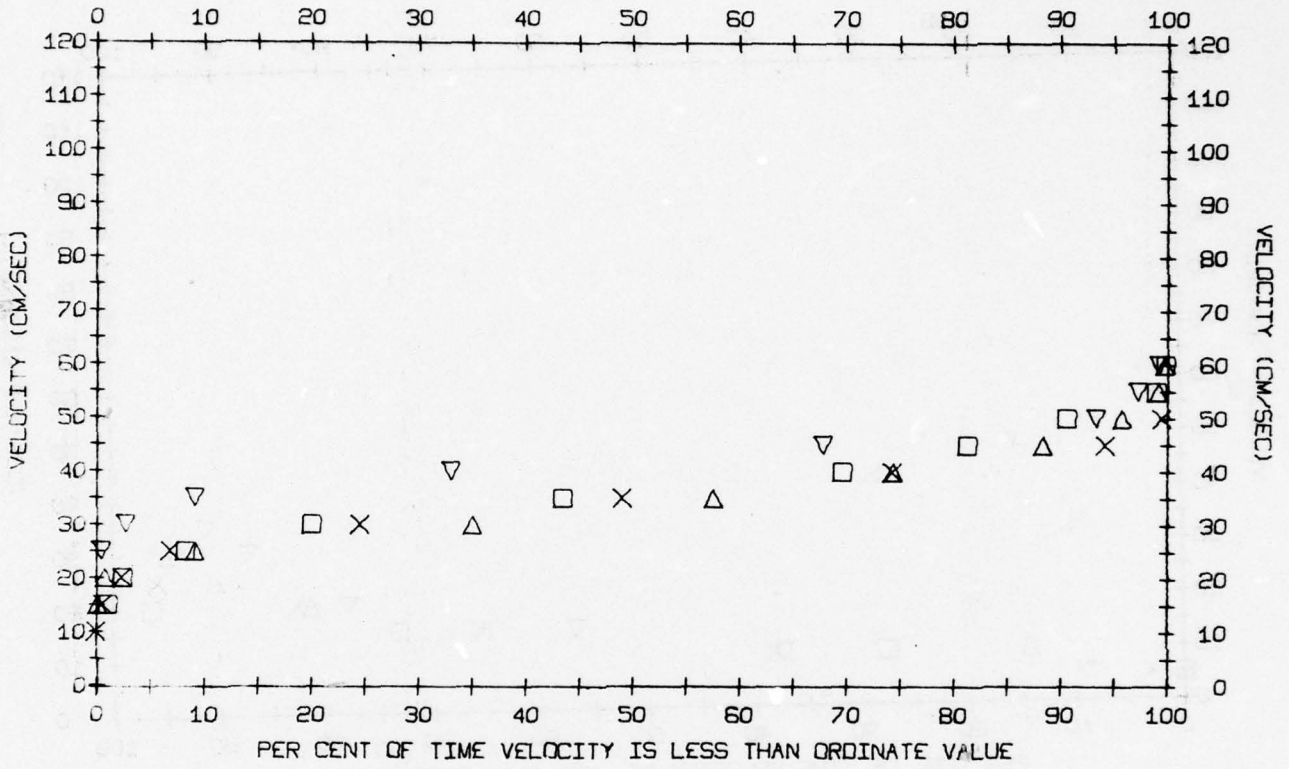
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	300	8	77	30.4	15.4	47.5	28.8	170

STATION 47 DATE 30 5 1963 LAT 61 4.0 N LONG -1 53.0 W



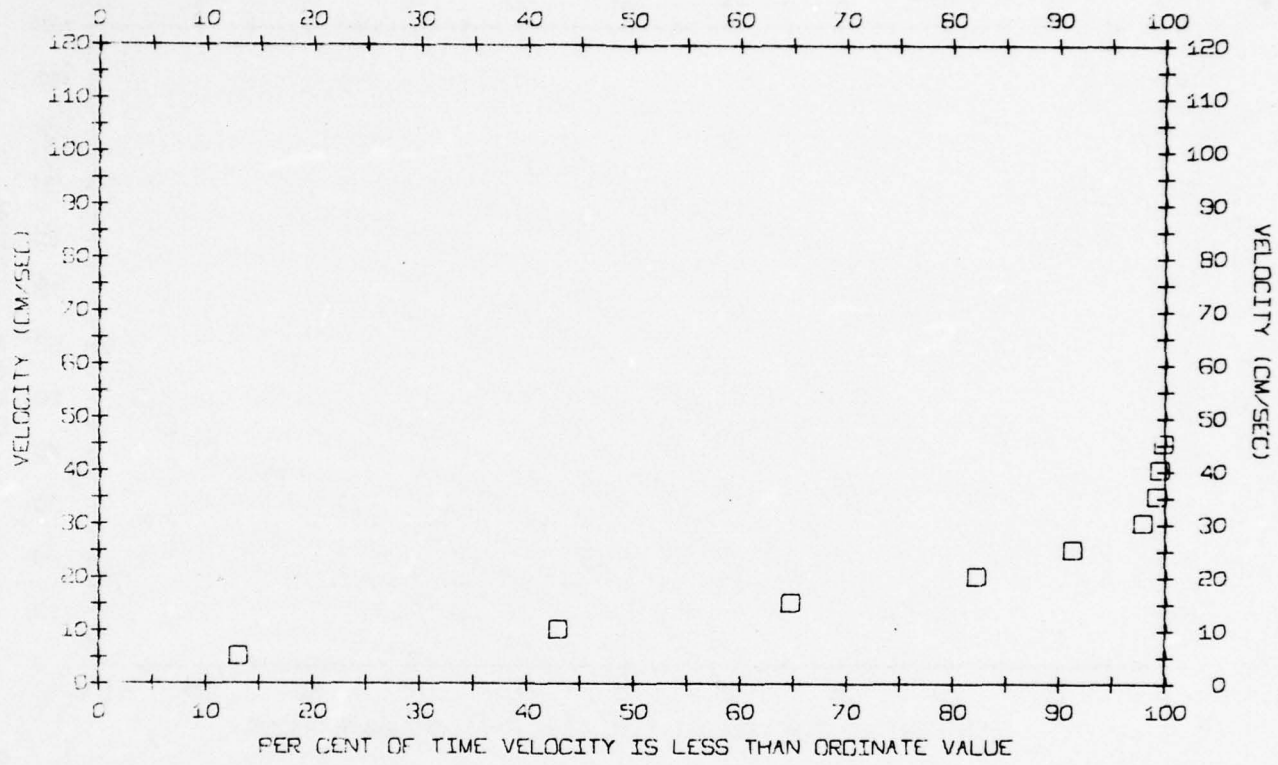
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	10	5	20	12.1	3.9	6.7	7.3	29
×	25	4	26	12.6	5.6	50.9	7.9	25
△	50	5	31	14.5	7.0	99.1	8.0	21
▽	100	3	38	14.5	9.6	87.9	12.1	23

STATION 48 DATE 1 6 1963 LAT 61 9.0 N LONG -2 23.0 W



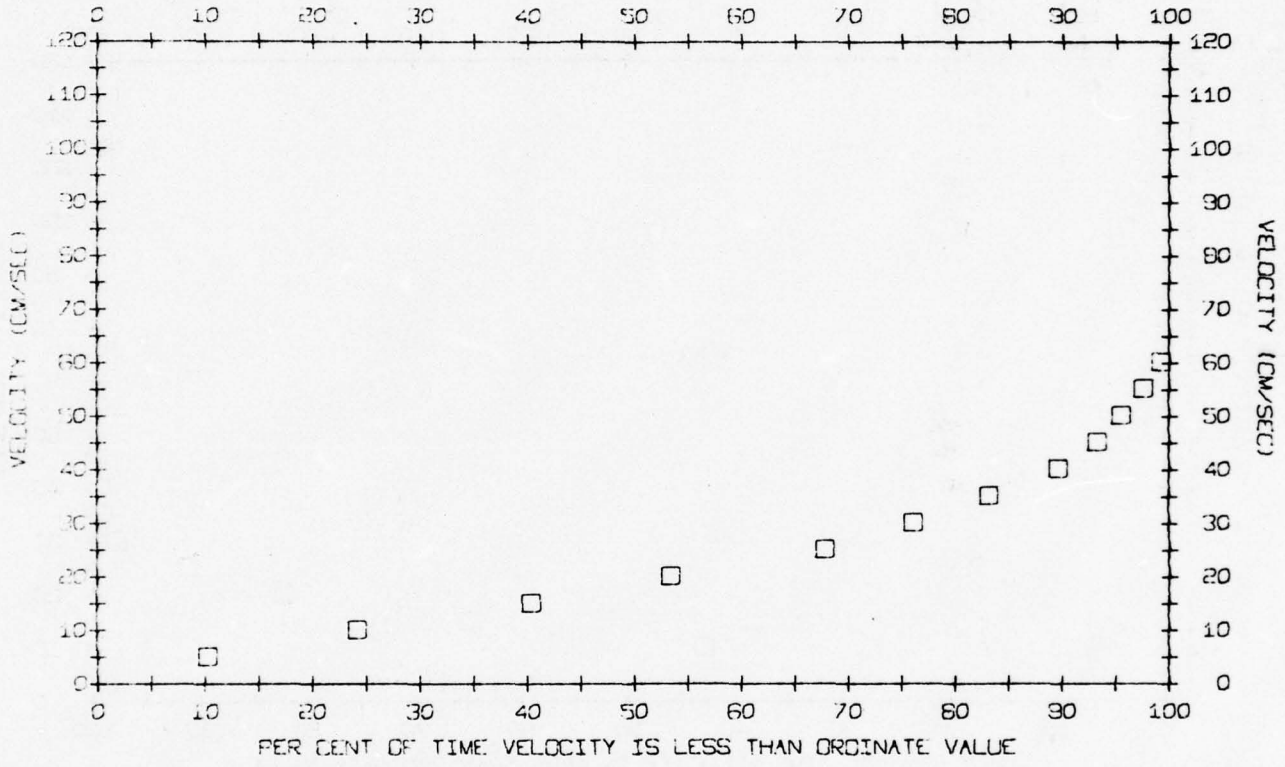
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	50	14	62	35.7	8.4	235.3	32.7	244
×	100	6	54	33.9	7.3	286.3	32.5	244
△	200	13	61	33.7	8.7	275.2	31.6	519
▽	500	21	63	41.4	7.3	281.1	41.0	506

STATION NOL 1 DATE 11 8 1972 LAT 62 51.2 N LONG 7 59.9 W



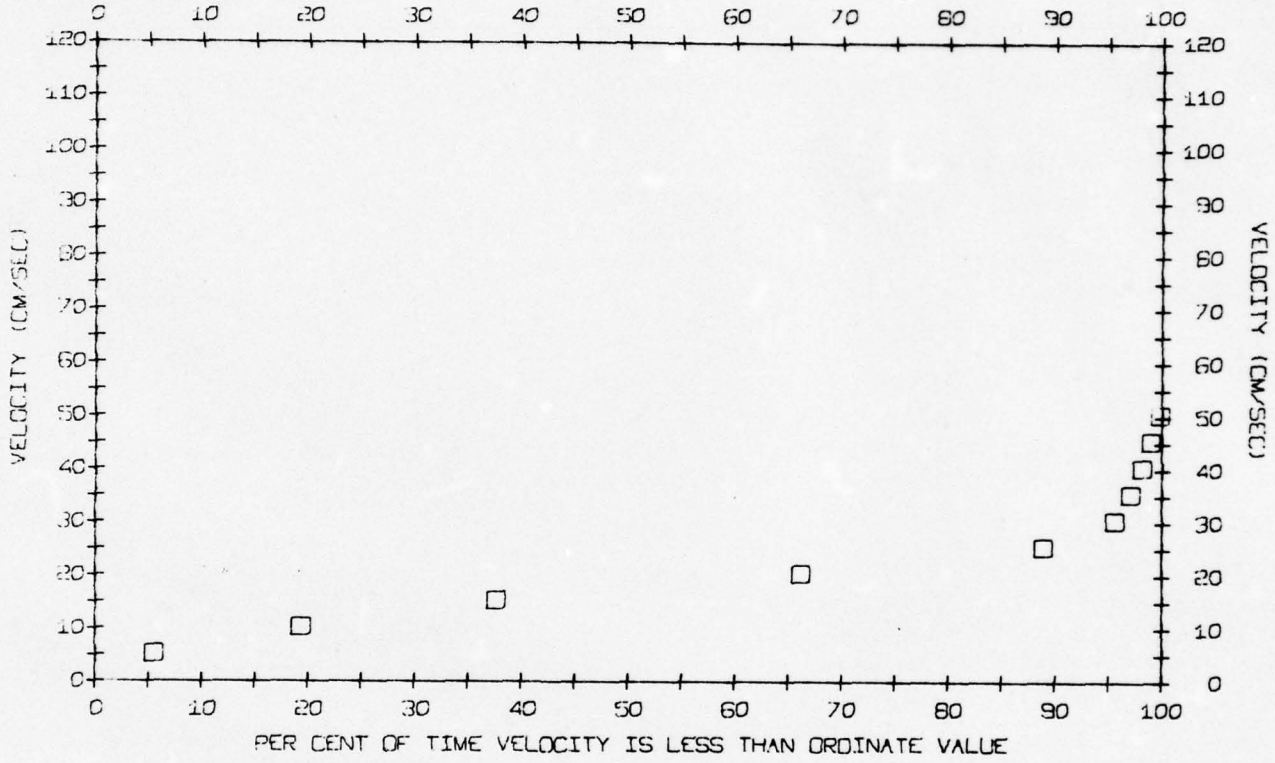
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	542	1	47	12.6	7.8	47.7	1.7	727

STATION NOL 2 DATE 11 8 1972 LAT 63 3.1 N LONG 9 38.1 W



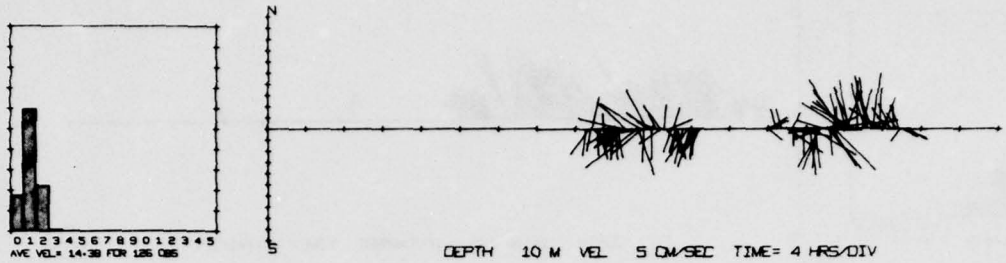
SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	478	1	61	20.4	13.8	82.4	3.2	437

STATION NOL 4 DATE 14 8 1972 LAT 63 43.4 N LONG 12 45.2 W

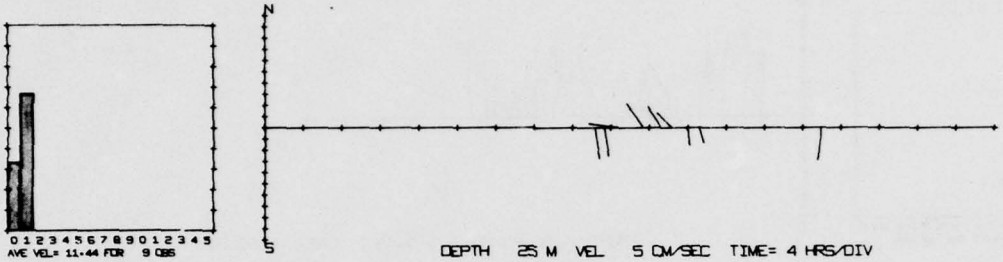


SYM	DEPTH M	MINIMUM VEL CM/SEC	MAXIMUM VEL CM/SEC	MEAN VELOCITY CM/SEC	STD. DEV. OF VELOCITY	VECTORIAL TRUE DIRECTION	VECTORIAL MEAN VEL CM/SEC	N-1
□	554	1	50	16.6	7.3	275.3	9.4	751

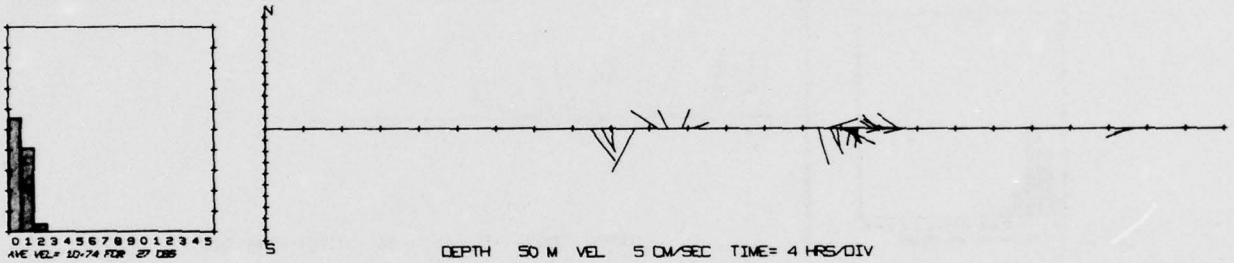
STATION 1001 64 0.0 4 0.0



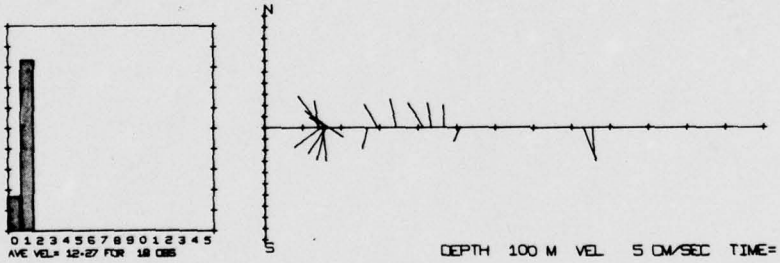
DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV



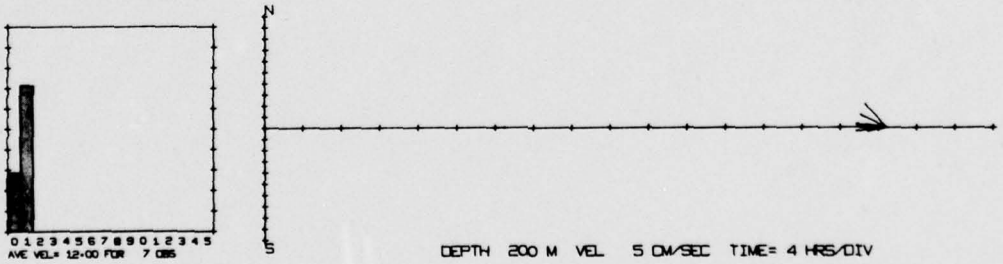
DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV



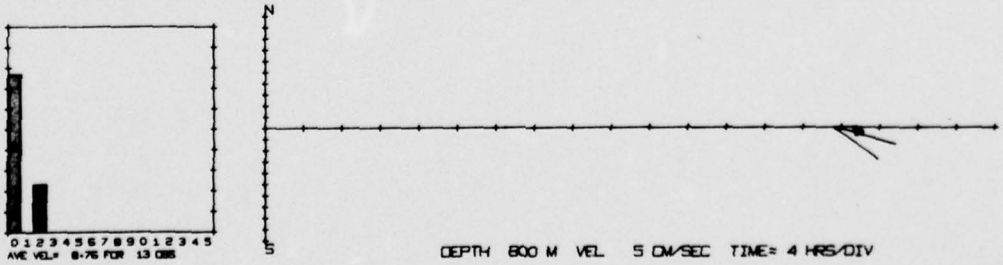
DEPTH 50 M VEL 5 CM/SEC TIME= 4 HRS/DIV



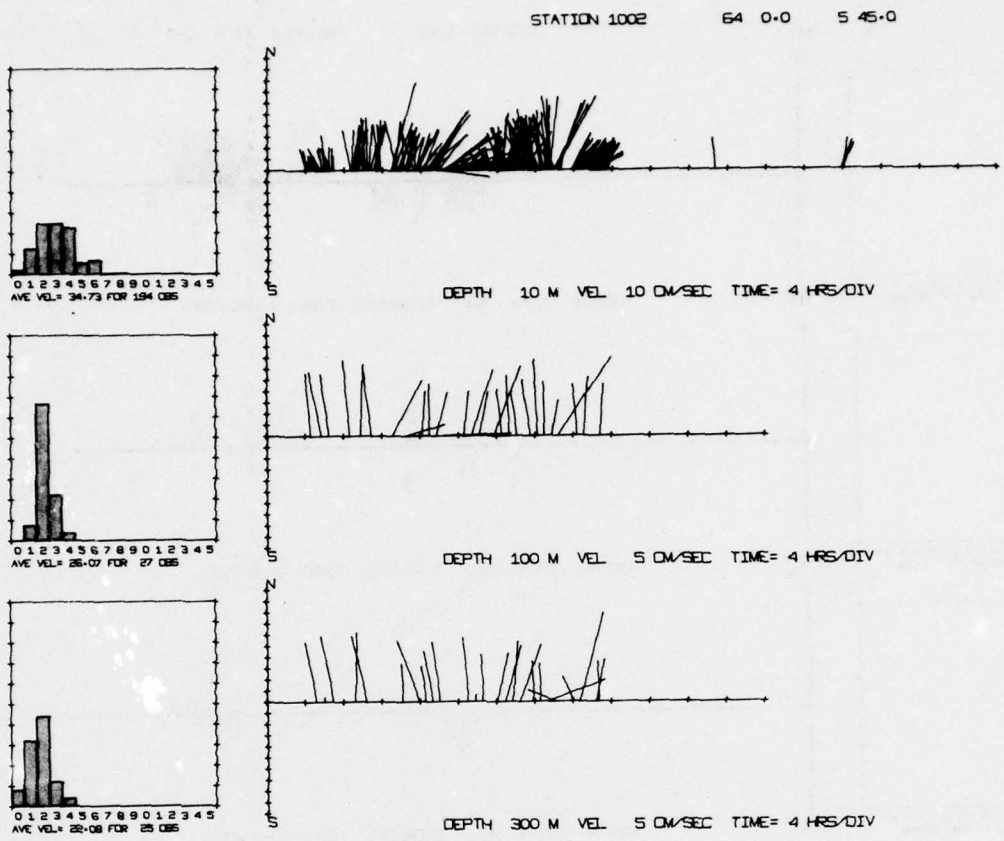
DEPTH 100 M VEL 5 CM/SEC TIME= 4 HRS/DIV

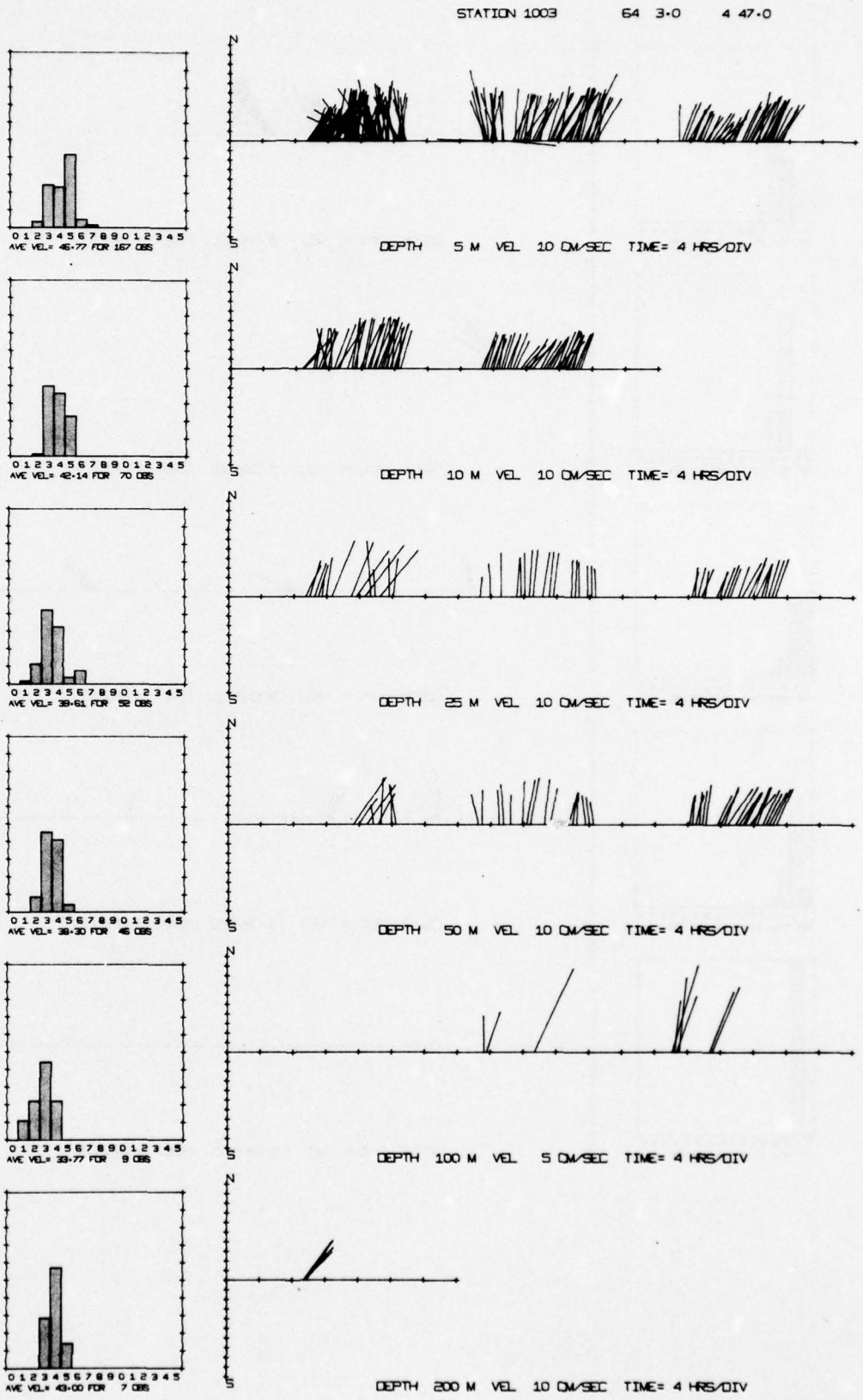


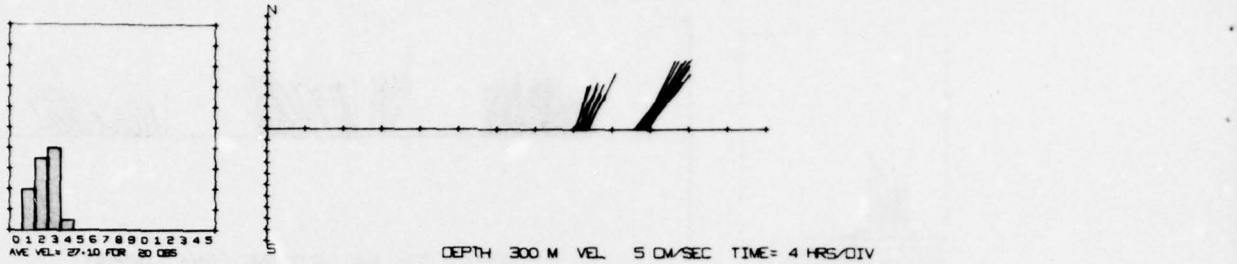
DEPTH 200 M VEL 5 CM/SEC TIME= 4 HRS/DIV

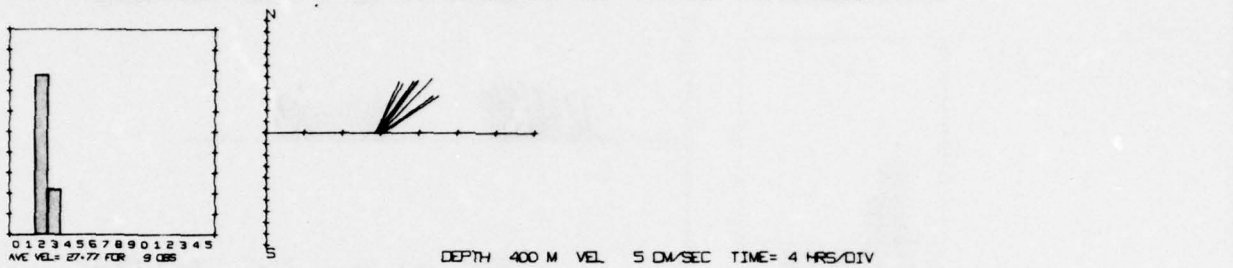


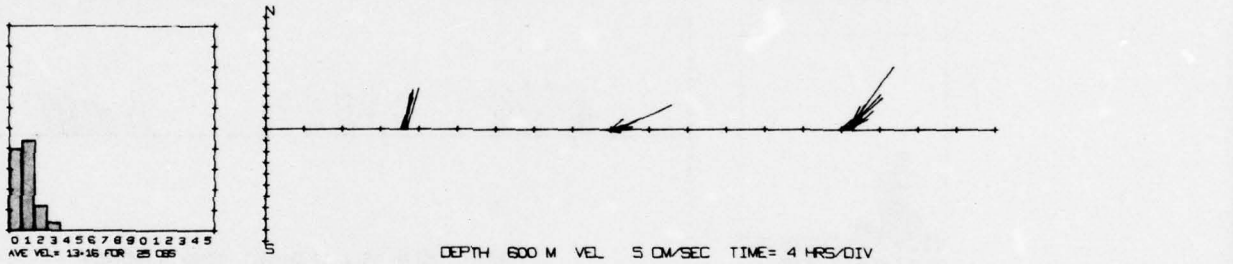
DEPTH 800 M VEL 5 CM/SEC TIME= 4 HRS/DIV

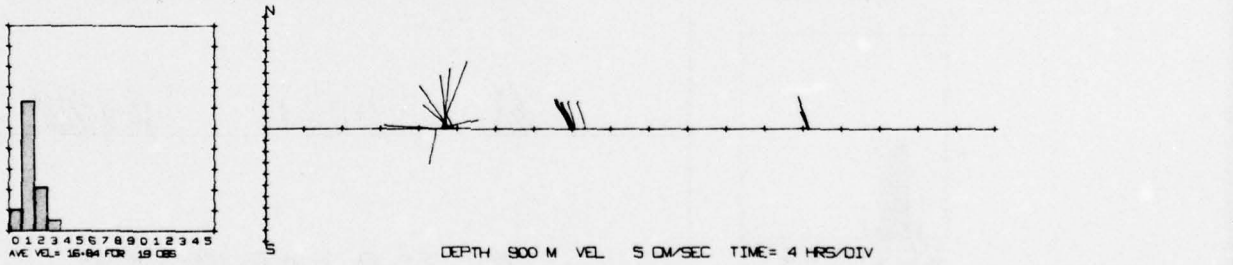

STATION 1002 64 0.0 5 45.0
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 34.73 FOR 194 DEG
N
S
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 26.07 FOR 27 DEG
N
S
DEPTH 100 M VEL 5 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 22.08 FOR 25 DEG
N
S
DEPTH 300 M VEL 5 CM/SEC TIME= 4 HRS/DIV

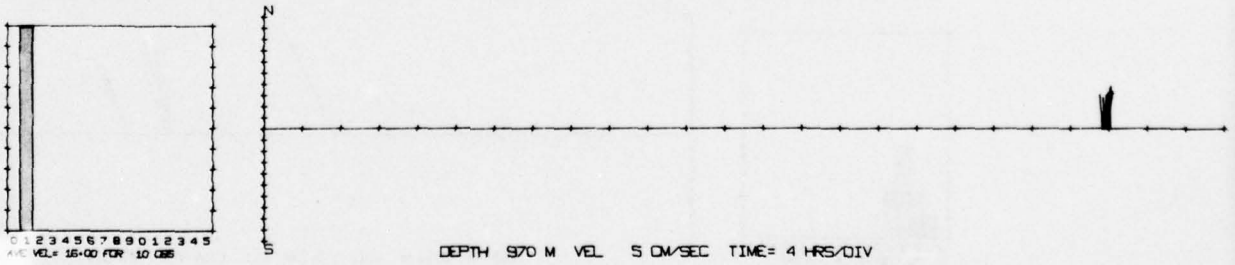

STATION 1003 64 3·0 4 47·0
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 46·77 FOR 167 OBS
N
S
DEPTH 5 M VEL 10 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 42·14 FOR 70 OBS
N
S
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 39·61 FOR 92 OBS
N
S
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 38·30 FOR 46 OBS
N
S
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 33·77 FOR 9 OBS
N
S
DEPTH 100 M VEL 5 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 43·00 FOR 7 OBS
N
S
DEPTH 200 M VEL 10 CM/SEC TIME= 4 HRS/DIV


0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 27.10 FOR 20 OBS
N
S
DEPTH 300 M VEL 5 CM/SEC TIME= 4 HRS/DIV

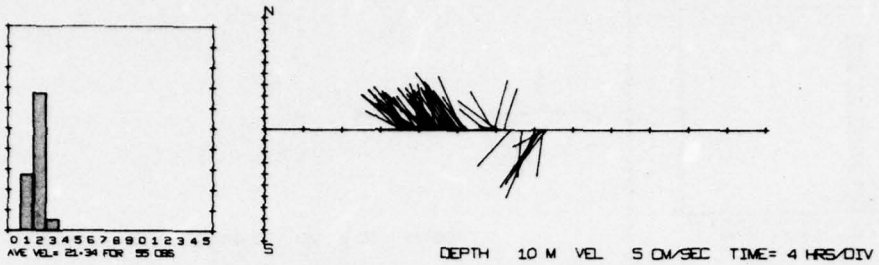

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 27.77 FOR 9 OBS
N
S
DEPTH 400 M VEL 5 CM/SEC TIME= 4 HRS/DIV


0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 13.16 FOR 25 OBS
N
S
DEPTH 600 M VEL 5 CM/SEC TIME= 4 HRS/DIV

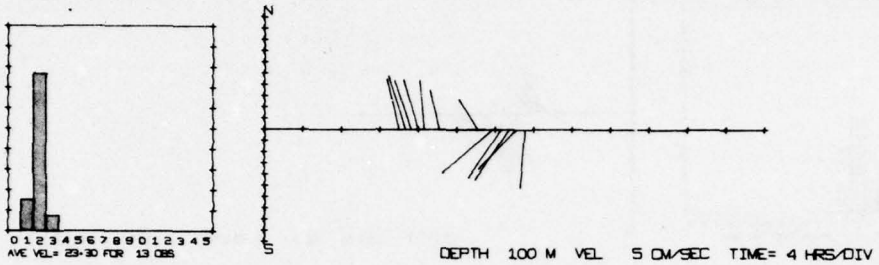

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 16.84 FOR 19 OBS
N
S
DEPTH 900 M VEL 5 CM/SEC TIME= 4 HRS/DIV


0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
VEL= 16.00 FOR 10 OBS
N
S
DEPTH 970 M VEL 5 CM/SEC TIME= 4 HRS/DIV

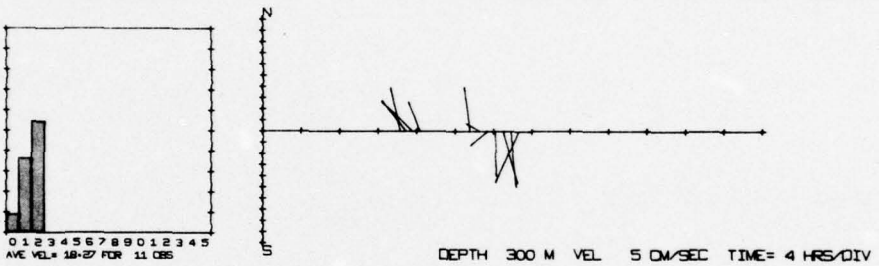
STATION 1004 62 52.0 2 40.0



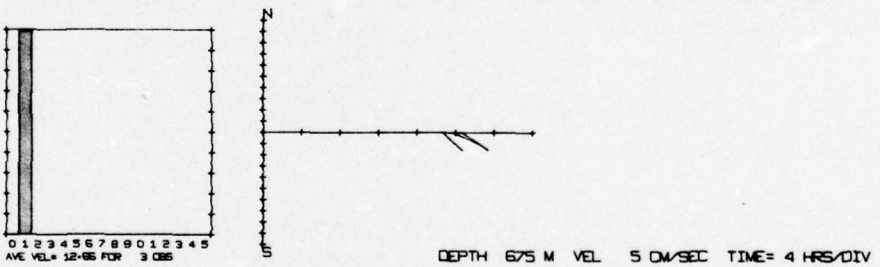
DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV



DEPTH 100 M VEL 5 CM/SEC TIME= 4 HRS/DIV

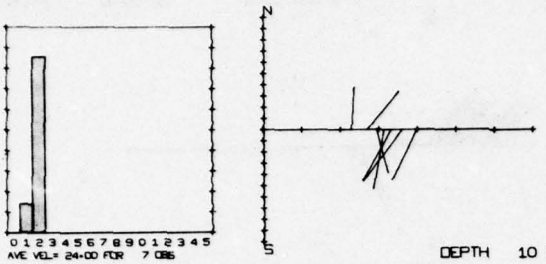


DEPTH 300 M VEL 5 CM/SEC TIME= 4 HRS/DIV

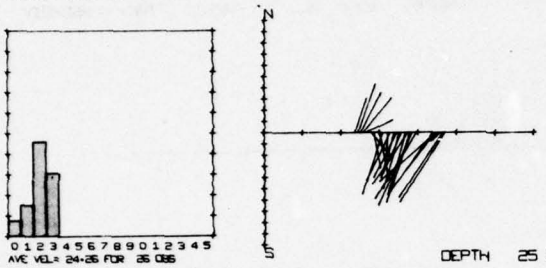


DEPTH 675 M VEL 5 CM/SEC TIME= 4 HRS/DIV

STATION 1005 62 33.0 2 29.0

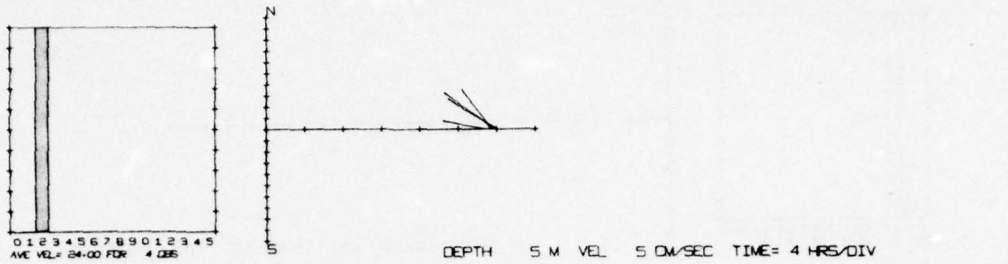


DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV

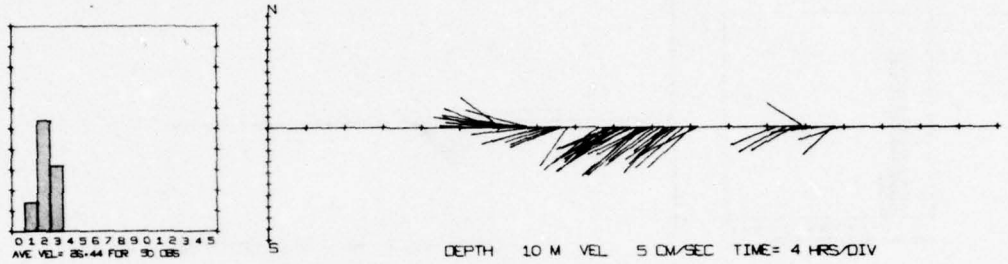


DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV

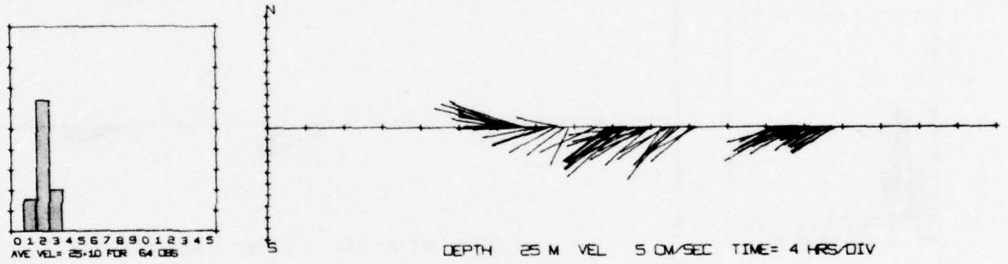
STATION 1006 62 42.0 0 33.0



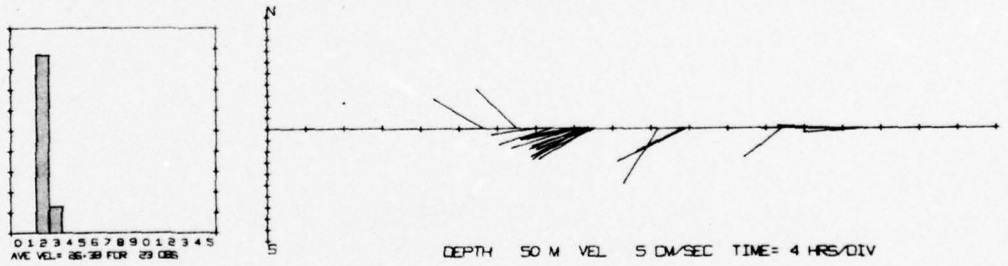
DEPTH 5 M VEL 5 CM/SEC TIME= 4 HRS/DIV



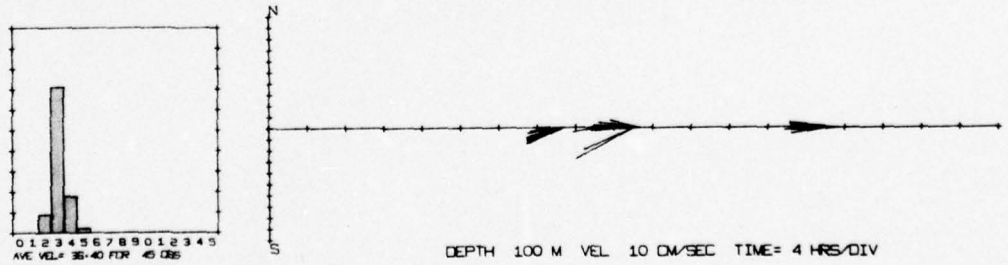
DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV



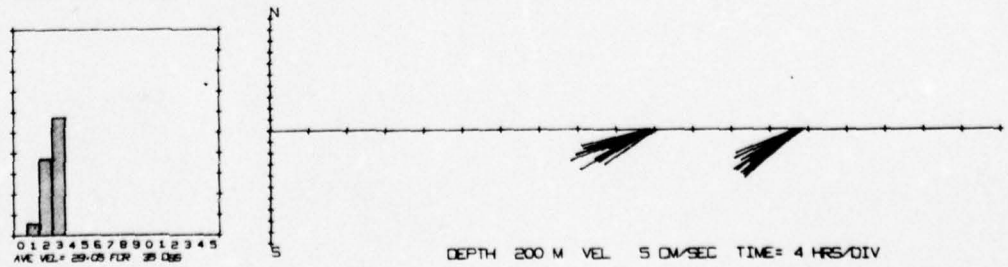
DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV



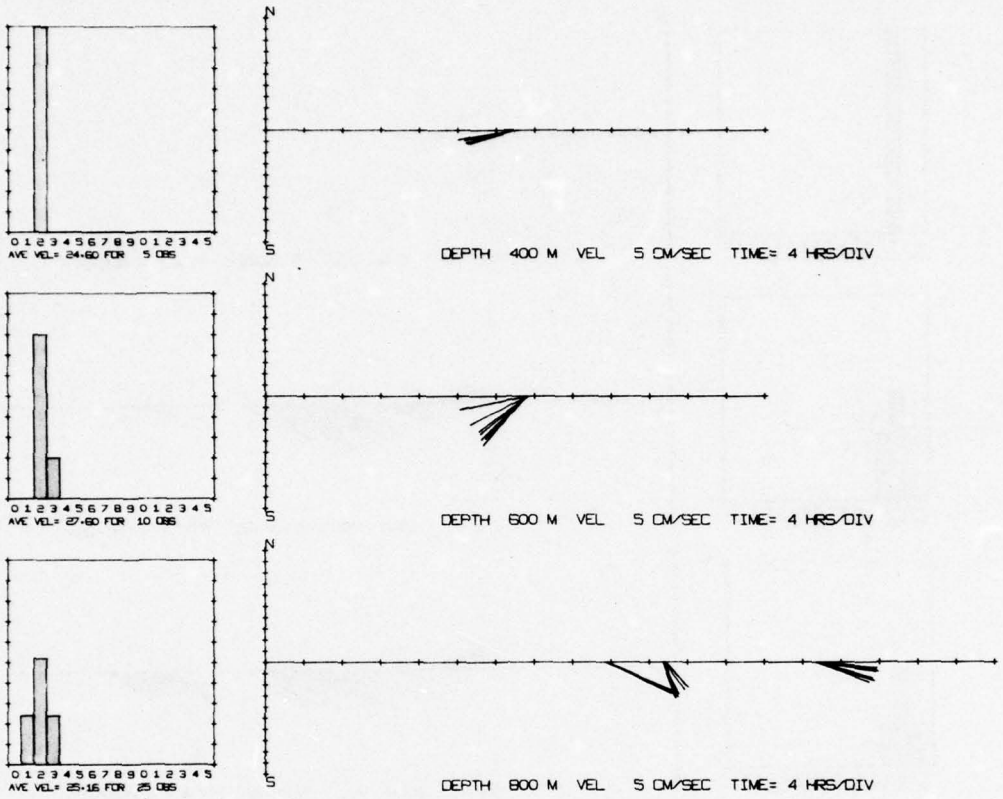
DEPTH 50 M VEL 5 CM/SEC TIME= 4 HRS/DIV



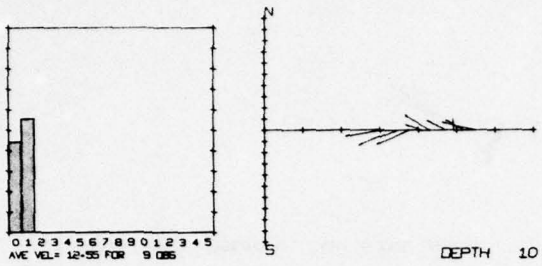
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV



DEPTH 200 M VEL 5 CM/SEC TIME= 4 HRS/DIV

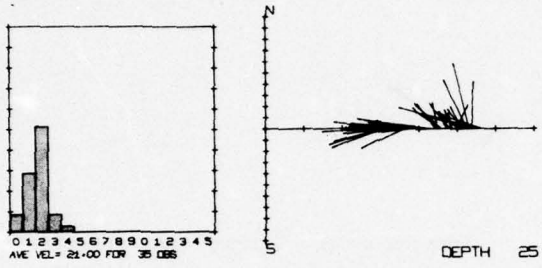

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 24.60 FOR 5 OBS
N
S
DEPTH 400 M VEL 5 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 27.60 FOR 10 OBS
N
S
DEPTH 600 M VEL 5 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 25.16 FOR 25 OBS
N
S
DEPTH 800 M VEL 5 CM/SEC TIME= 4 HRS/DIV

STATION 1007 62 46.0 0 21.0



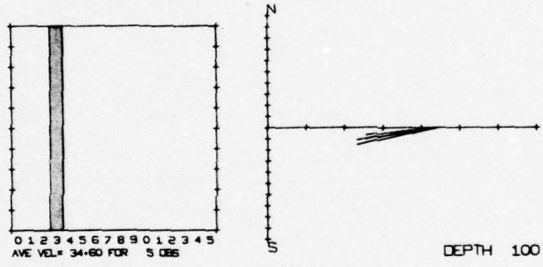
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 12.55 FOR 9 OBS

DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV



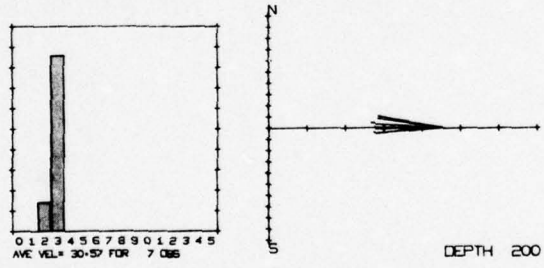
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 21.00 FOR 35 OBS

DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV



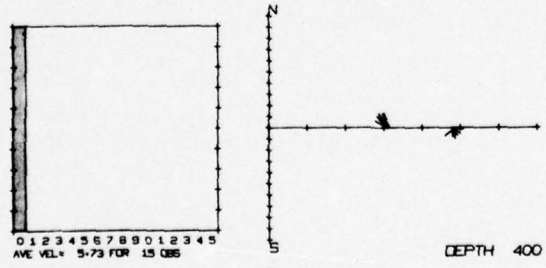
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 34.60 FOR 5 OBS

DEPTH 100 M VEL 5 CM/SEC TIME= 4 HRS/DIV



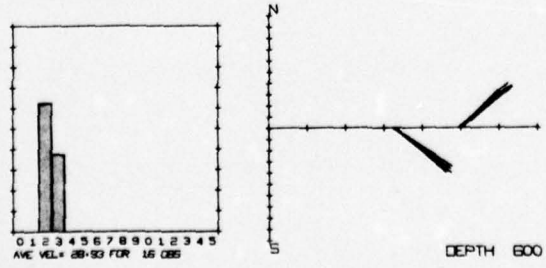
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 30.57 FOR 7 OBS

DEPTH 200 M VEL 5 CM/SEC TIME= 4 HRS/DIV



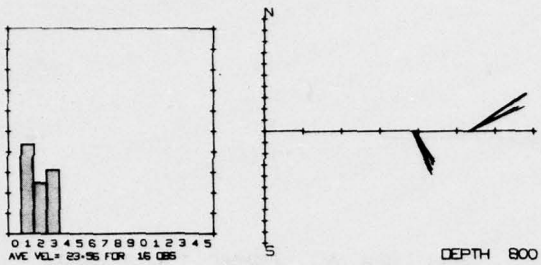
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 5.73 FOR 15 OBS

DEPTH 400 M VEL 5 CM/SEC TIME= 4 HRS/DIV

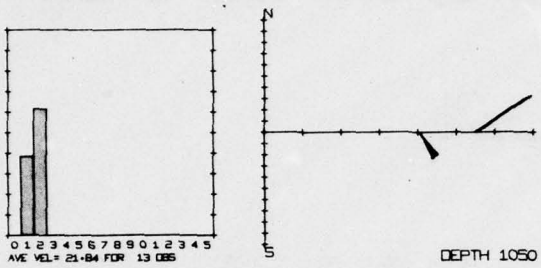


0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 28.93 FOR 16 OBS

DEPTH 600 M VEL 5 CM/SEC TIME= 4 HRS/DIV

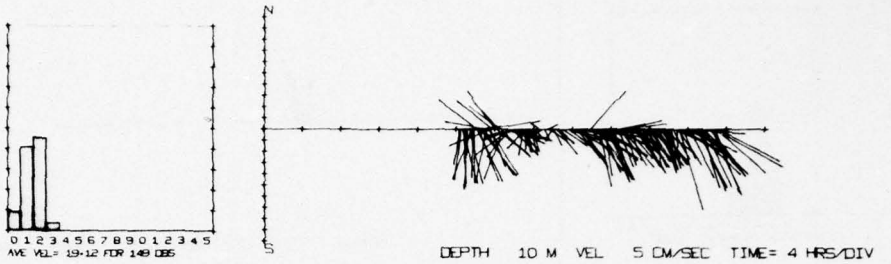


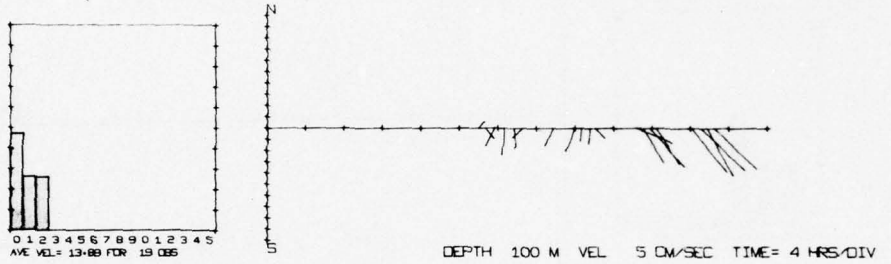
DEPTH 800 M VEL 5 CM/SEC TIME= 4 HRS/DIV

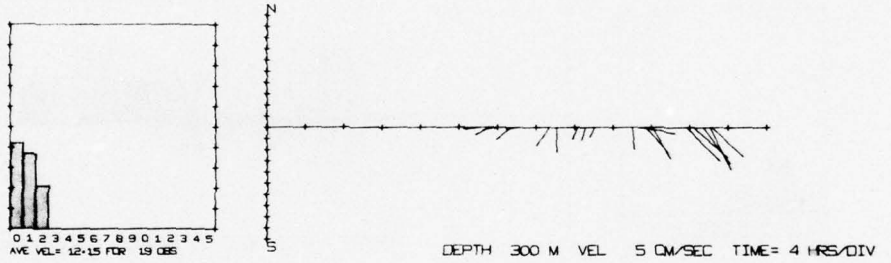


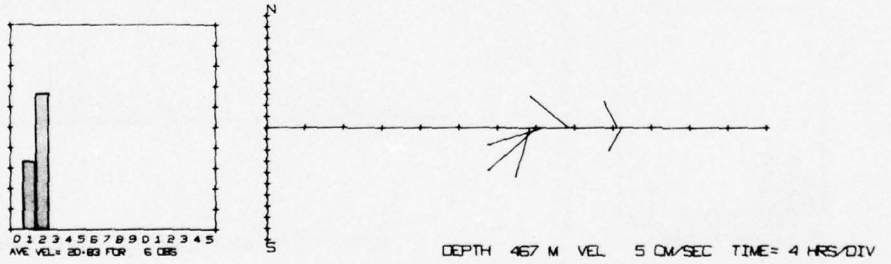
DEPTH 1050 M VEL 5 CM/SEC TIME= 4 HRS/DIV

STATION 1008 62 7.0 0 20.0

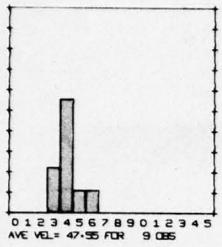


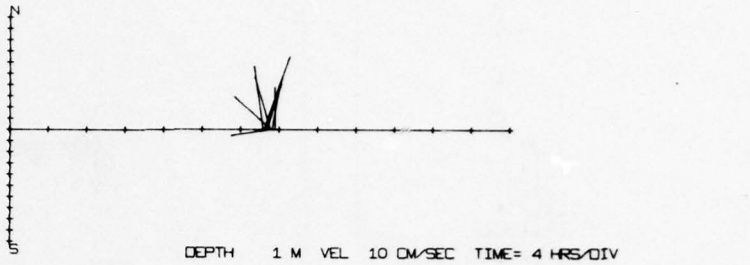




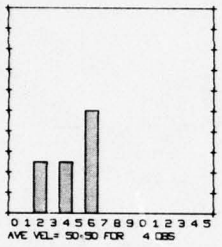


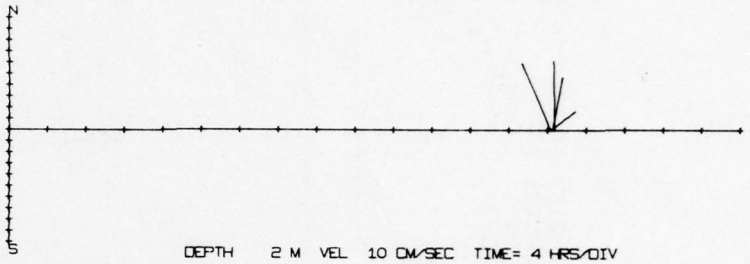
STATION 1009 61 17.0 -1 44.0



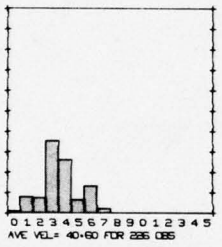


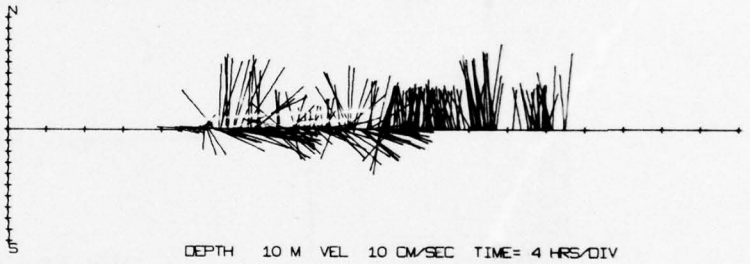
DEPTH 1 M VEL 10 CM/SEC TIME= 4 HRS/DIV



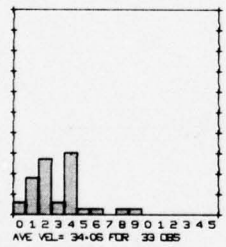


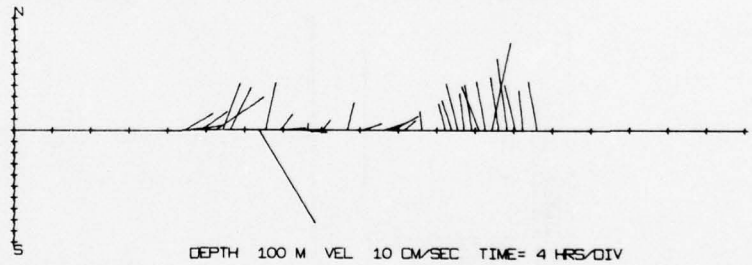
DEPTH 2 M VEL 10 CM/SEC TIME= 4 HRS/DIV



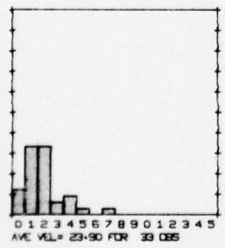


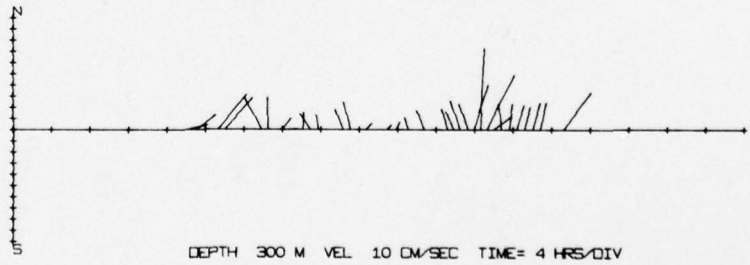
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV



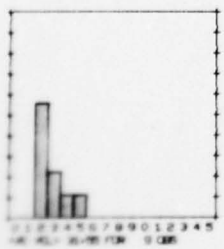


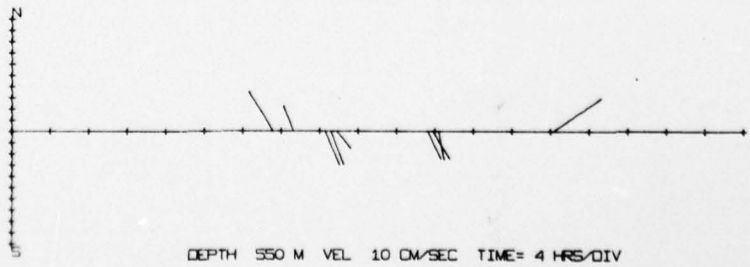
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV





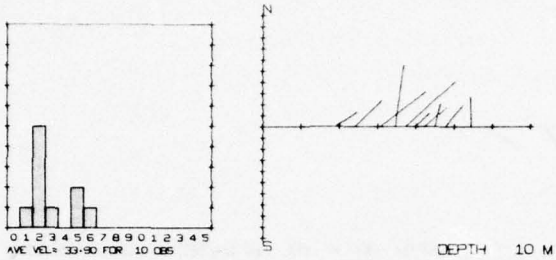
DEPTH 300 M VEL 10 CM/SEC TIME= 4 HRS/DIV



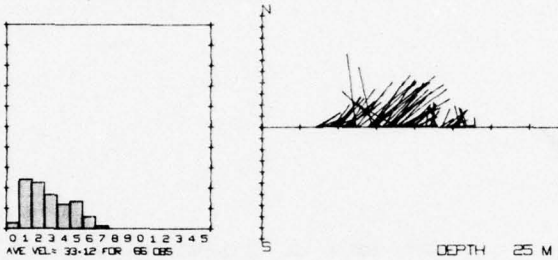


DEPTH 550 M VEL 10 CM/SEC TIME= 4 HRS/DIV

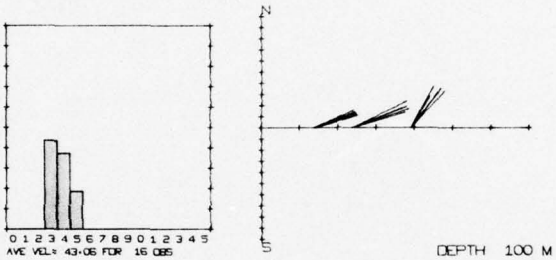
STATION 1010 61 28.0 -1 58.0



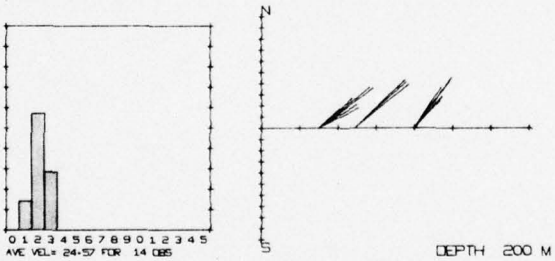
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV



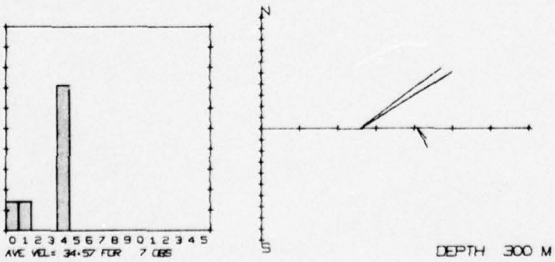
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV



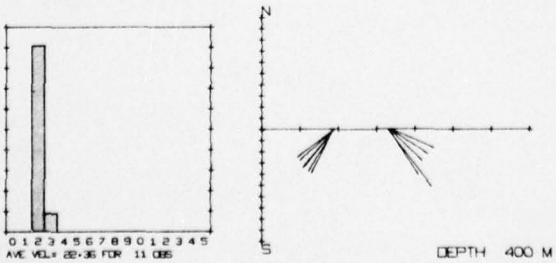
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV



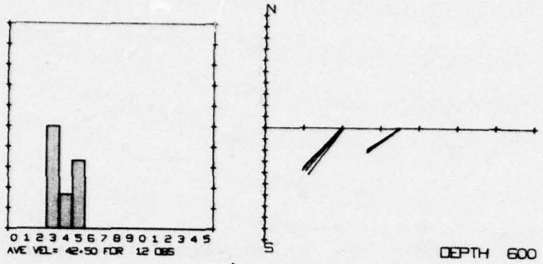
DEPTH 200 M VEL 5 CM/SEC TIME= 4 HRS/DIV



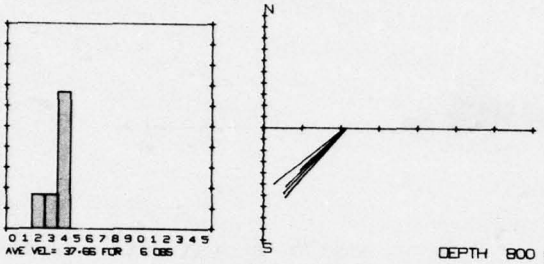
DEPTH 300 M VEL 5 CM/SEC TIME= 4 HRS/DIV



DEPTH 400 M VEL 5 CM/SEC TIME= 4 HRS/DIV

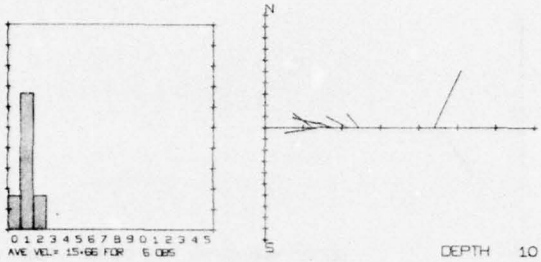


DEPTH 600 M VEL 10 CM/SEC TIME= 4 HRS/DIV

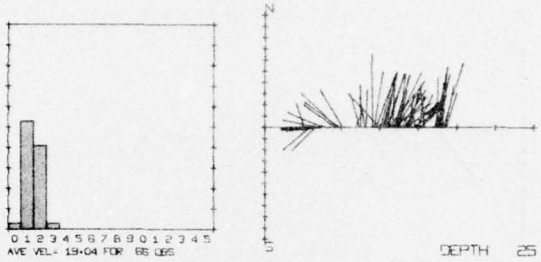


DEPTH 800 M VEL 5 CM/SEC TIME= 4 HRS/DIV

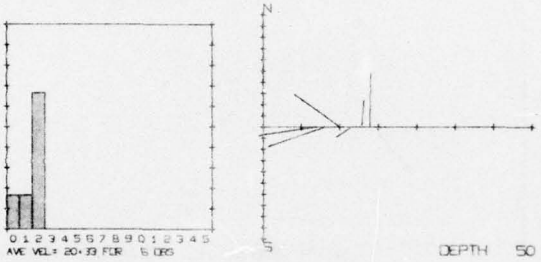
STATION 1011 61 29.0 -2 8.0



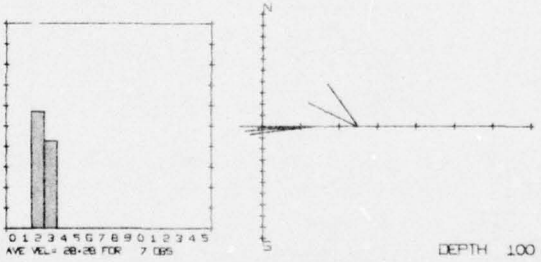
DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV



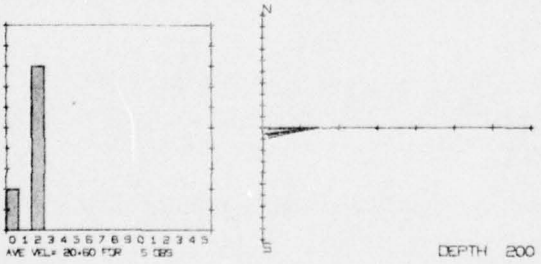
DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV



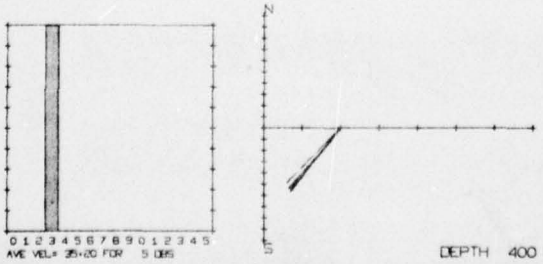
DEPTH 50 M VEL 5 CM/SEC TIME= 4 HRS/DIV



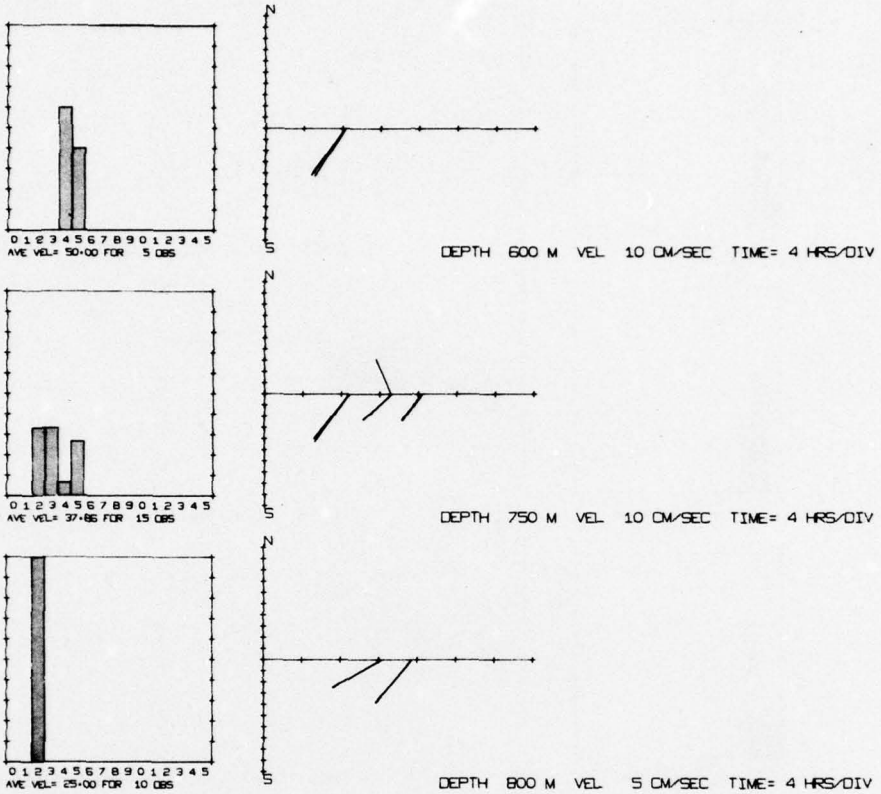
DEPTH 100 M VEL 5 CM/SEC TIME= 4 HRS/DIV



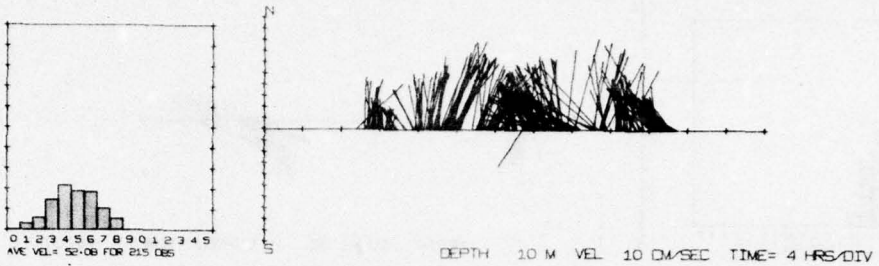
DEPTH 200 M VEL 5 CM/SEC TIME= 4 HRS/DIV

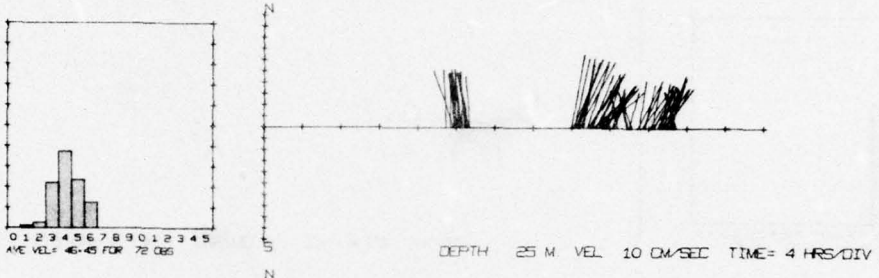


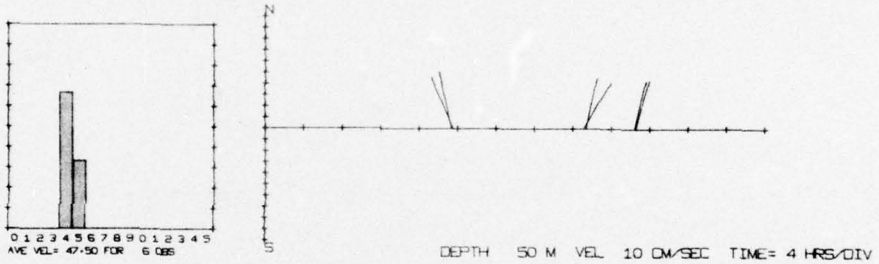
DEPTH 400 M VEL 5 CM/SEC TIME= 4 HRS/DIV


0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 50.00 FOR 5 OBS
N
DEPTH 600 M VEL 10 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 37.86 FOR 15 OBS
N
DEPTH 750 M VEL 10 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 25.00 FOR 10 OBS
N
DEPTH 800 M VEL 5 CM/SEC TIME= 4 HRS/DIV

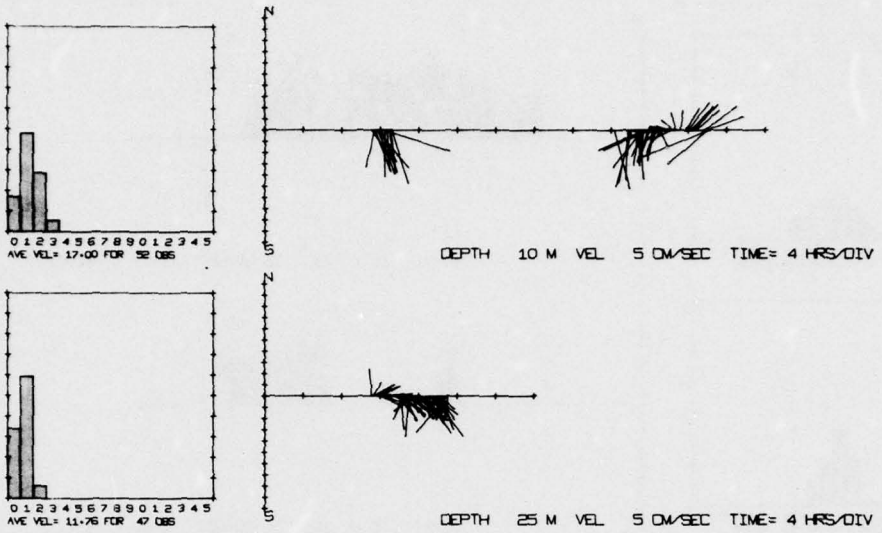
STATION 1012 60 16.0 4 51.0



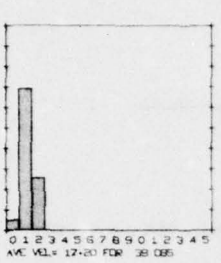


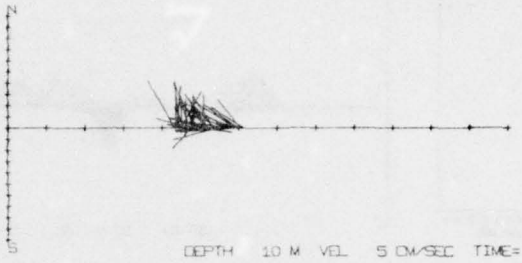


STATION 1013 60 36.0 3 15.0

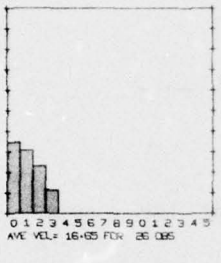


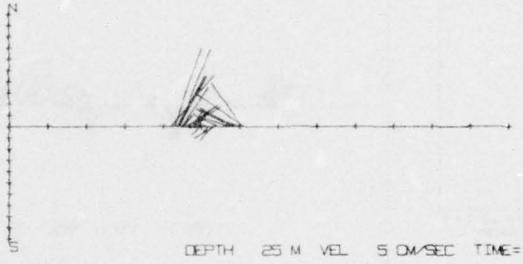
STATION 1014 60 15.0 4 35.0



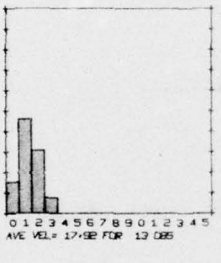


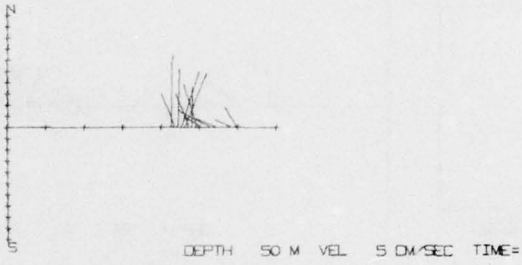
DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV





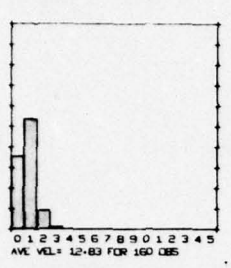
DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV

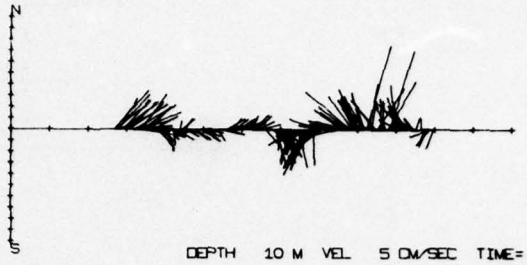




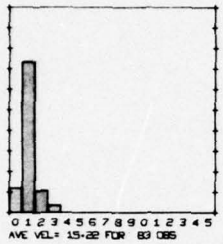
DEPTH 50 M VEL 5 CM/SEC TIME= 4 HRS/DIV

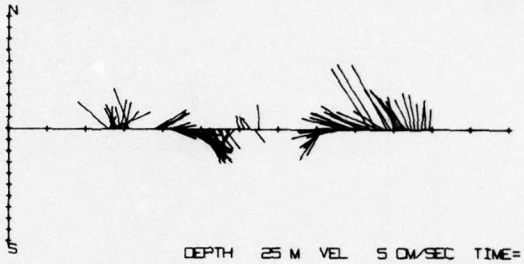
STATION 1015 60 18.0 3 12.0



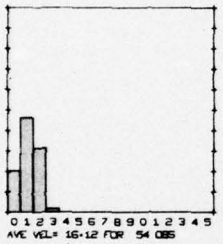


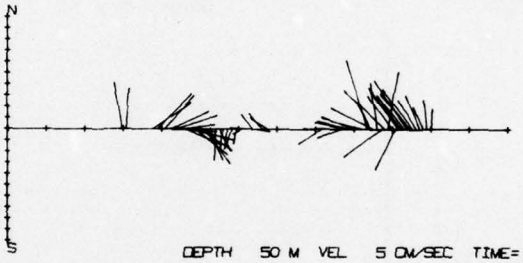
DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV





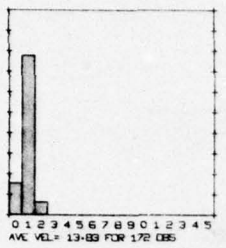
DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV

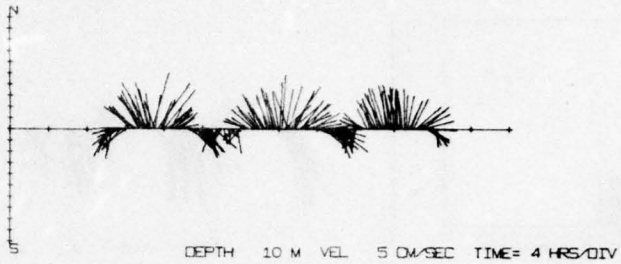


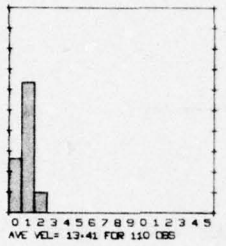


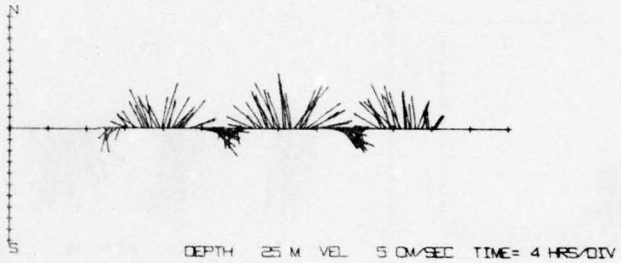
DEPTH 50 M VEL 5 CM/SEC TIME= 4 HRS/DIV

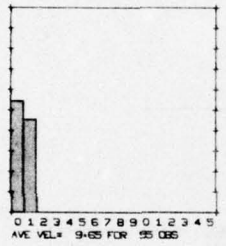
STATION 1016 60 22.0 1 13.0

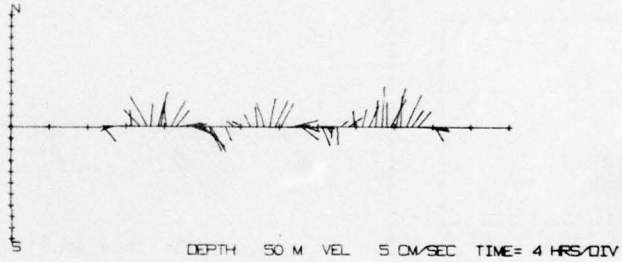


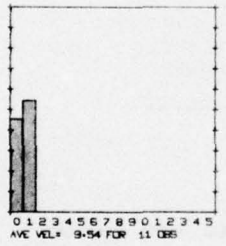


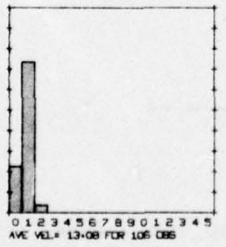


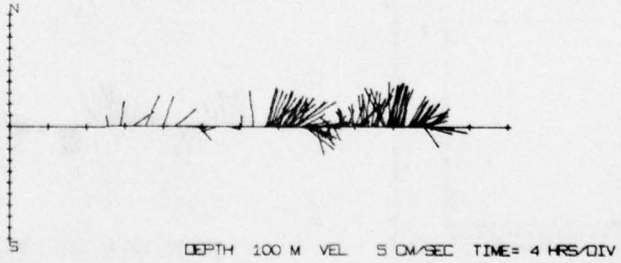


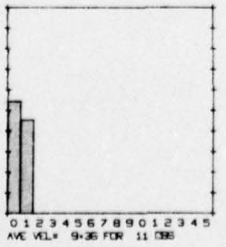


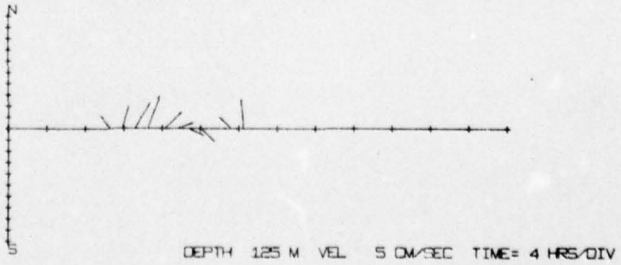




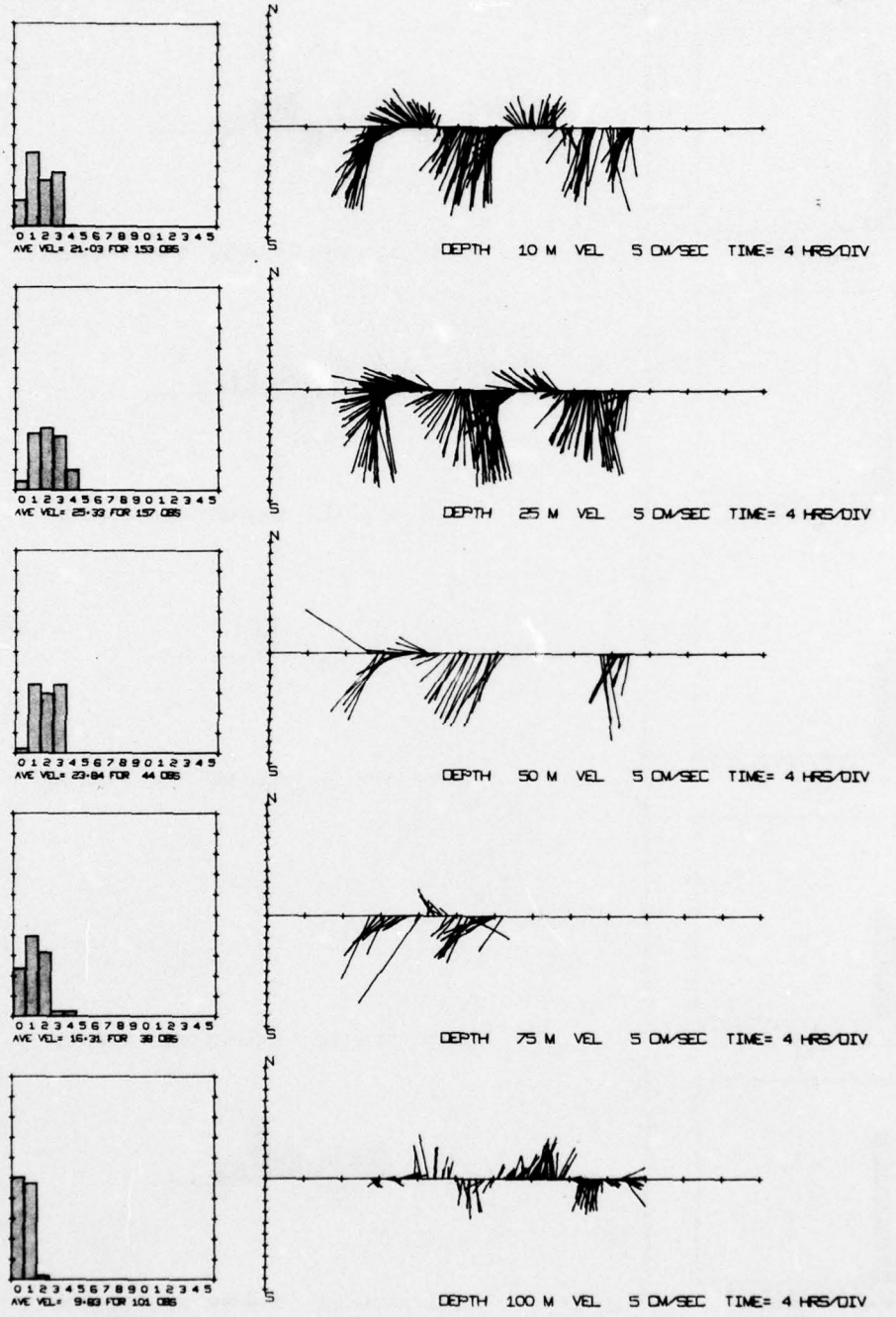




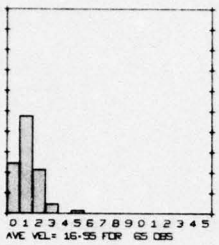


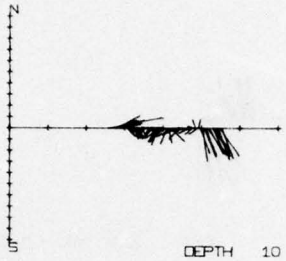


STATION 1017 60 20.0 0 30.0

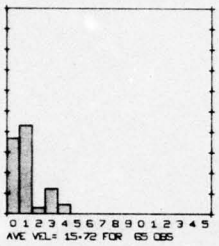


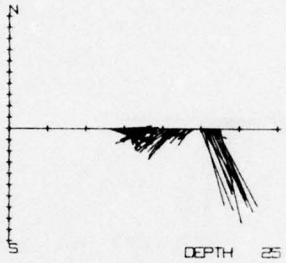
STATION 1018 60 44.0 -2 6.0



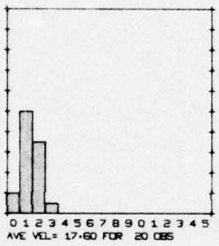


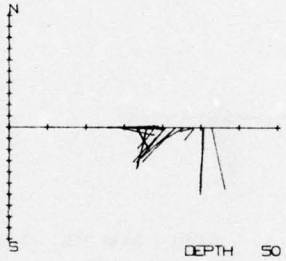
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV



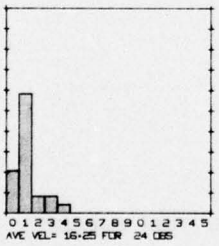


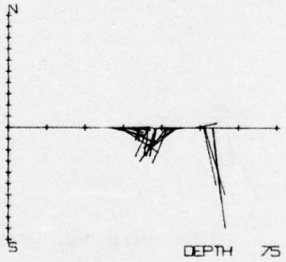
DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV



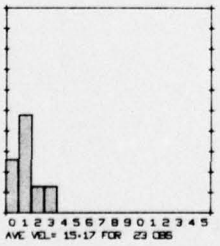


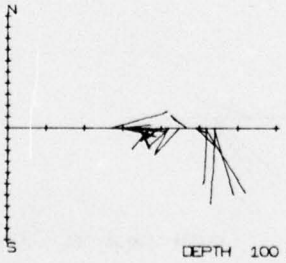
DEPTH 50 M VEL 5 CM/SEC TIME= 4 HRS/DIV



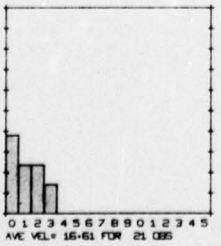


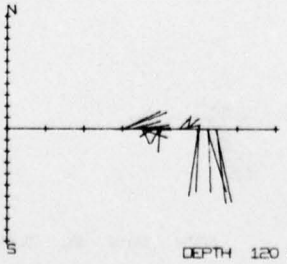
DEPTH 75 M VEL 5 CM/SEC TIME= 4 HRS/DIV





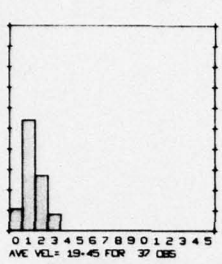
DEPTH 100 M VEL 5 CM/SEC TIME= 4 HRS/DIV

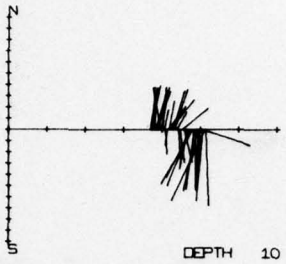




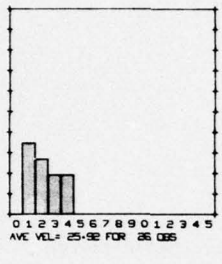
DEPTH 120 M VEL 5 CM/SEC TIME= 4 HRS/DIV

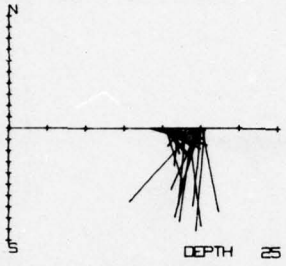
STATION 1019 60 55.0 -2 28.0



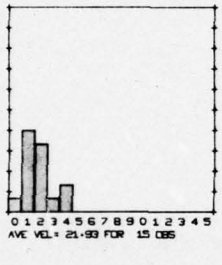


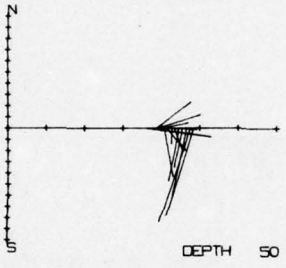
DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV



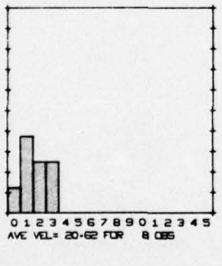


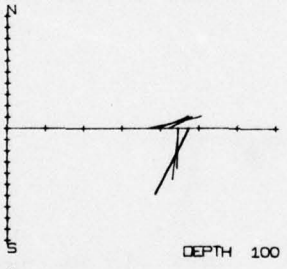
DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV



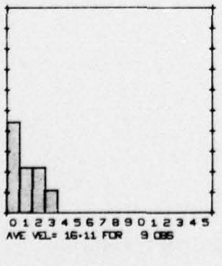


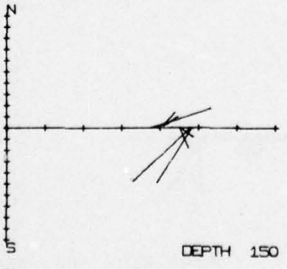
DEPTH 50 M VEL 5 CM/SEC TIME= 4 HRS/DIV



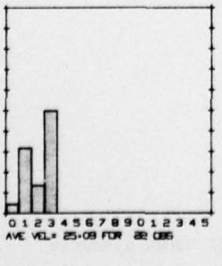


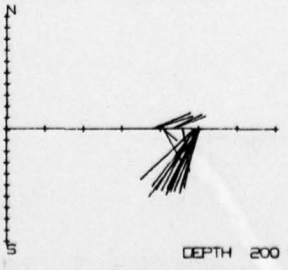
DEPTH 100 M VEL 5 CM/SEC TIME= 4 HRS/DIV





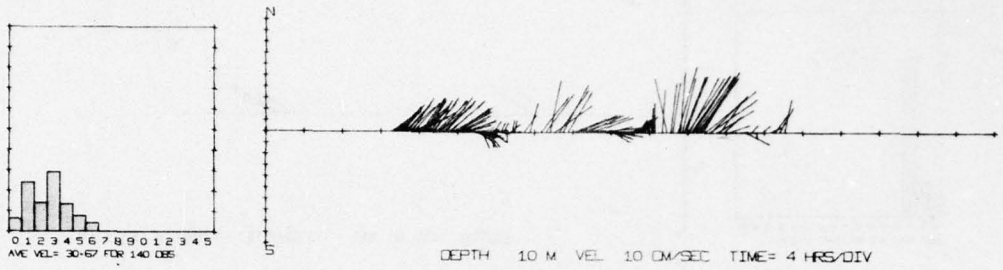
DEPTH 150 M VEL 5 CM/SEC TIME= 4 HRS/DIV

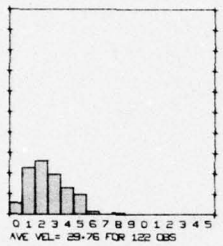




DEPTH 200 M VEL 5 CM/SEC TIME= 4 HRS/DIV

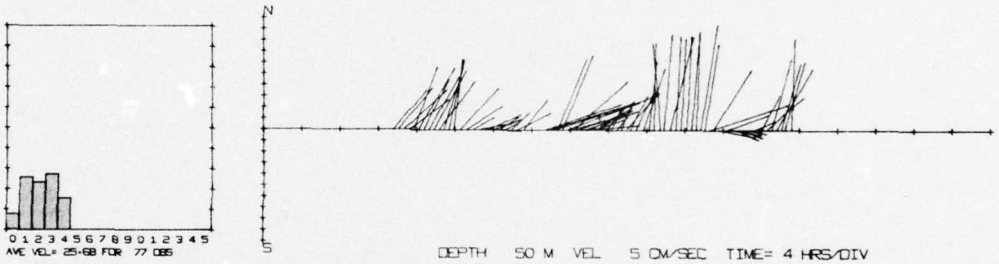
STATION 1020 60 59.0 -2 39.0



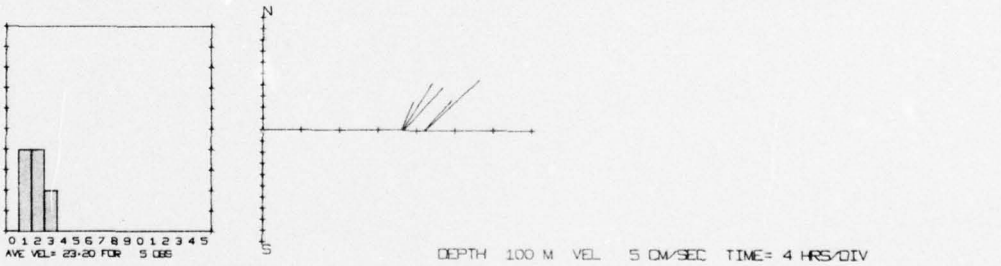


DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV

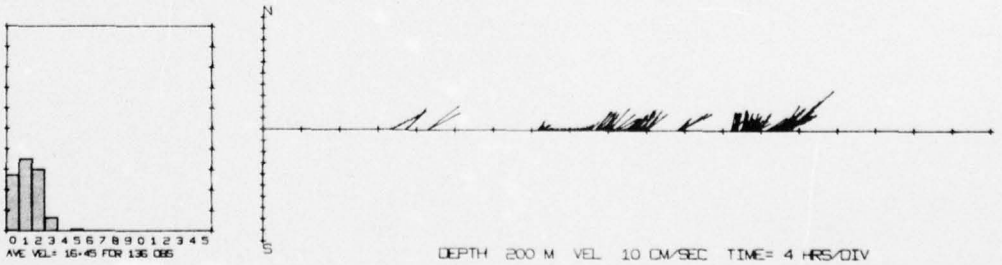
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV



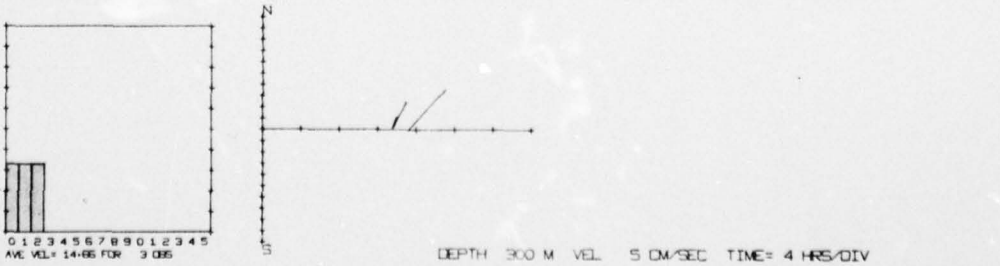
DEPTH 50 M VEL 5 CM/SEC TIME= 4 HRS/DIV



DEPTH 100 M VEL 5 CM/SEC TIME= 4 HRS/DIV



DEPTH 200 M VEL 10 CM/SEC TIME= 4 HRS/DIV



DEPTH 300 M VEL 5 CM/SEC TIME= 4 HRS/DIV

AD-A049 023 NAVAL OCEANOGRAPHIC OFFICE WASHINGTON D C F/G 8/3
A SUMMARY OF CURRENT OBSERVATIONS BETWEEN ICELAND AND NORWAY.(U)
MAY 75 S W DOREY

UNCLASSIFIED NOO-TN-6120-01-75 NL

2 OF 2
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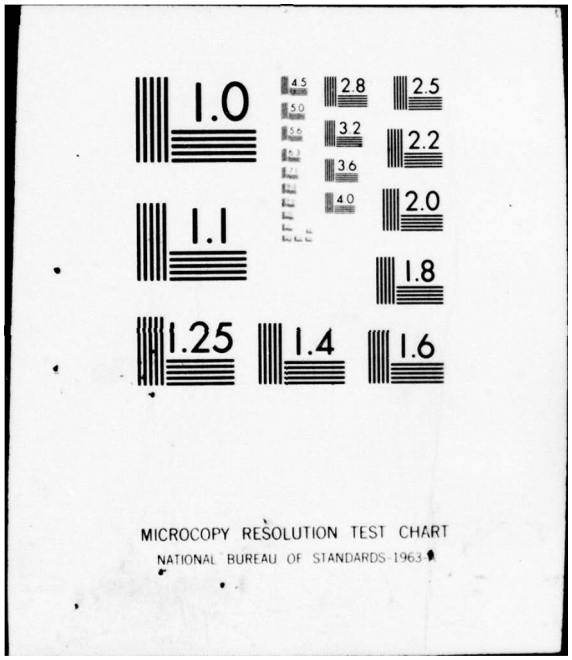
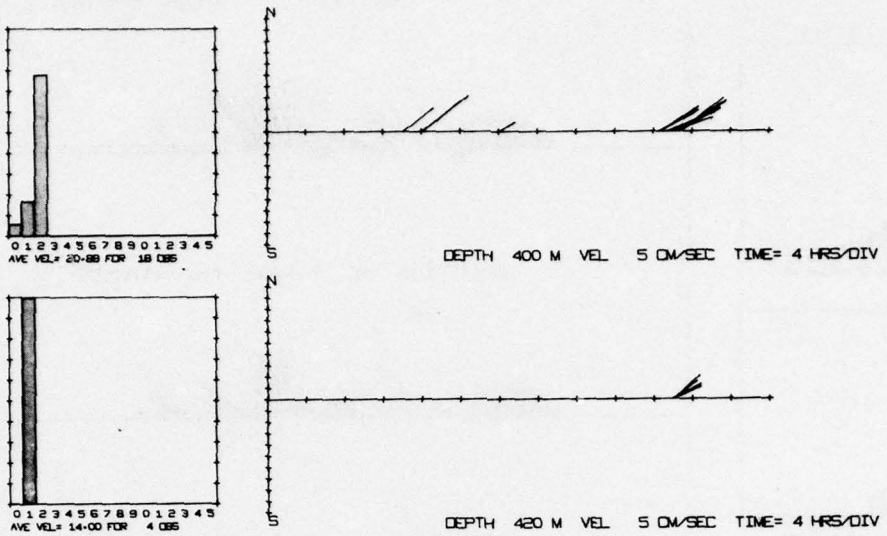
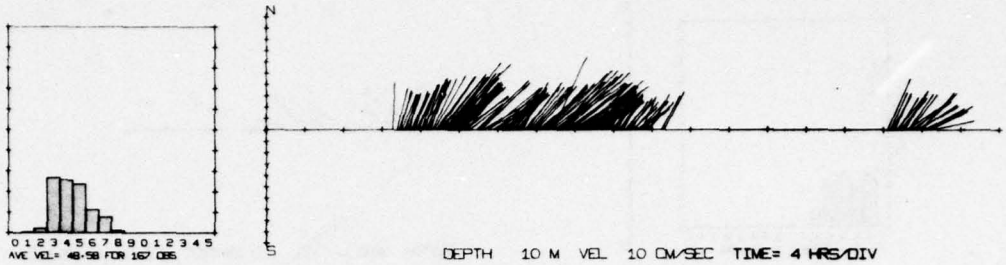
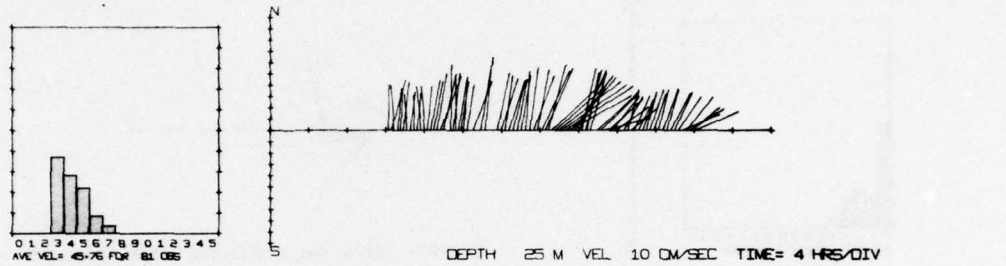

1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
5.6
MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963


N
S
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 20.88 FOR 18 OBS
DEPTH 400 M VEL 5 CM/SEC TIME= 4 HRS/DIV
N
S
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 14.00 FOR 4 OBS
DEPTH 420 M VEL 5 CM/SEC TIME= 4 HRS/DIV

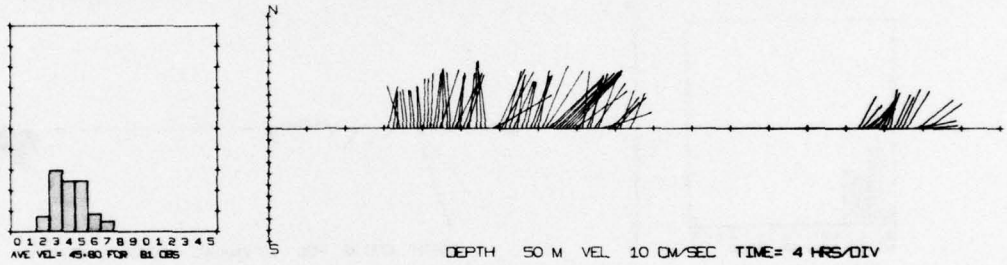
STATION 1021 61 8.0 -2 53.0



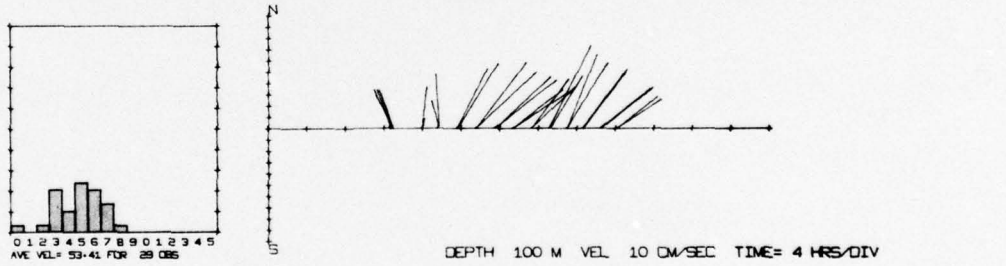
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV



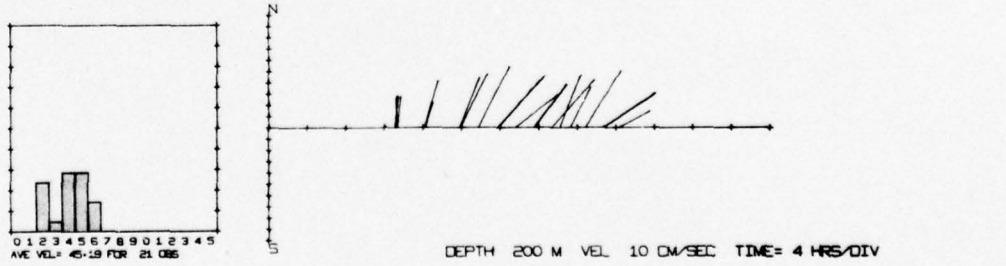
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV



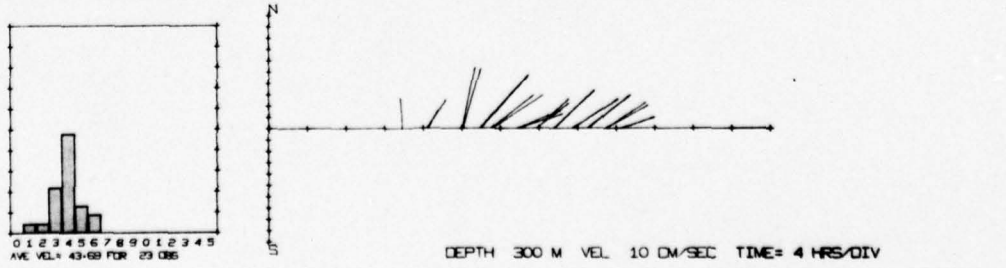
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV



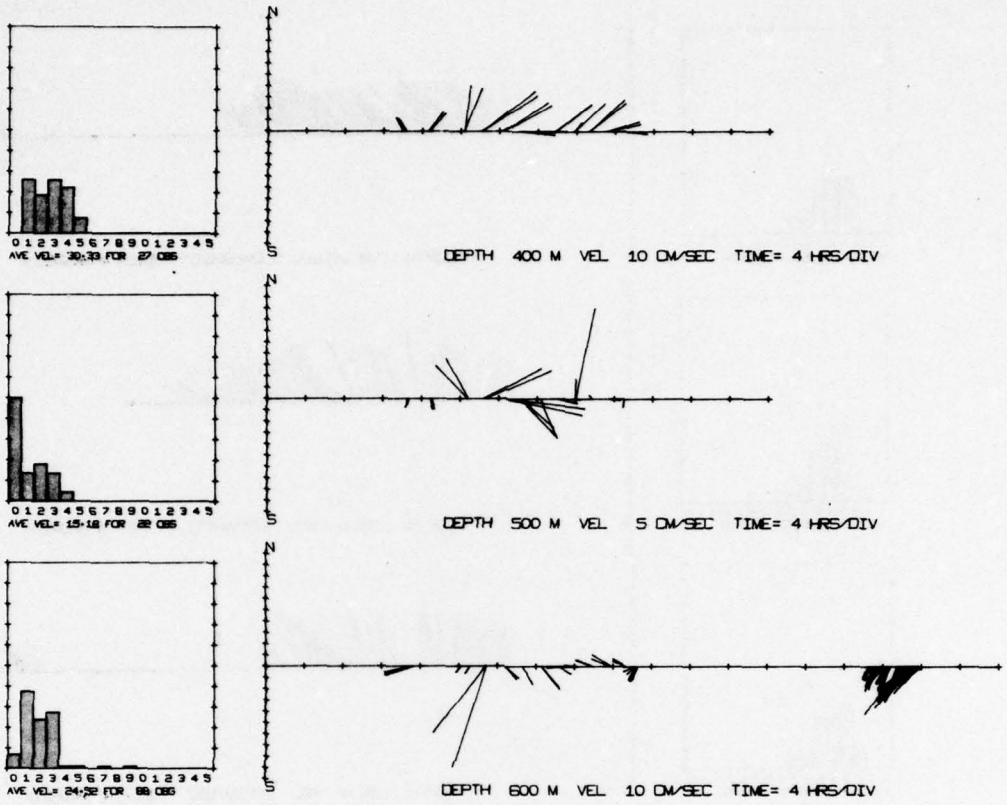
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV



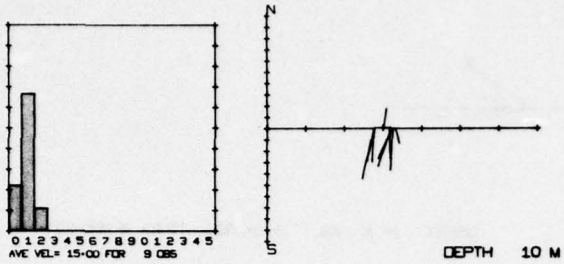
DEPTH 200 M VEL 10 CM/SEC TIME= 4 HRS/DIV



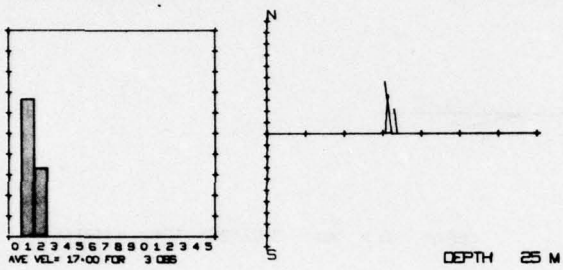
DEPTH 300 M VEL 10 CM/SEC TIME= 4 HRS/DIV


0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 30.33 FOR 27 OBS
N
S
DEPTH 400 M VEL 10 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 15.18 FOR 28 OBS
N
S
DEPTH 500 M VEL 5 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 24.52 FOR 88 OBS
N
S
DEPTH 600 M VEL 10 CM/SEC TIME= 4 HRS/DIV

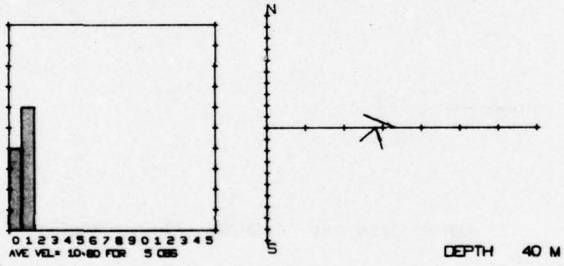
STATION 1022 58 30.0 -5 40.0



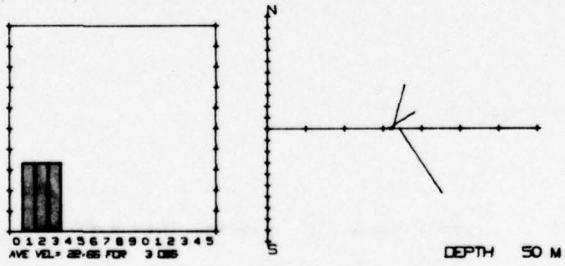
DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV



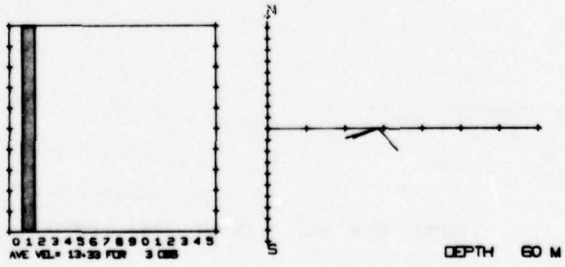
DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV



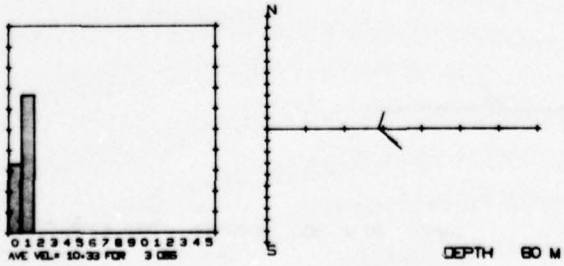
DEPTH 40 M VEL 5 CM/SEC TIME= 4 HRS/DIV



DEPTH 50 M VEL 5 CM/SEC TIME= 4 HRS/DIV

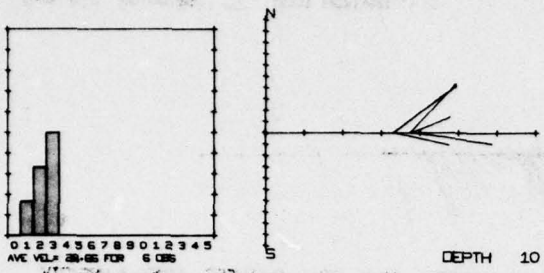


DEPTH 60 M VEL 5 CM/SEC TIME= 4 HRS/DIV

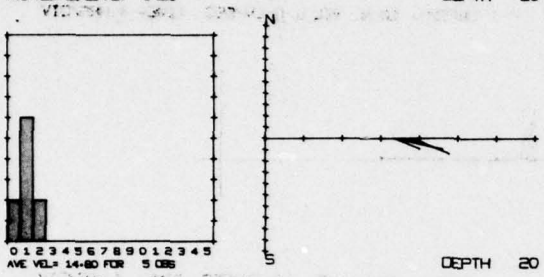


DEPTH 60 M VEL 5 CM/SEC TIME= 4 HRS/DIV

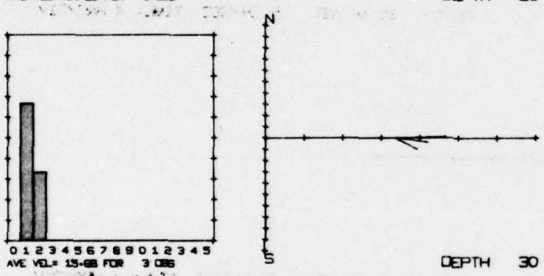
STATION 1023 61 14.0 0 30.0



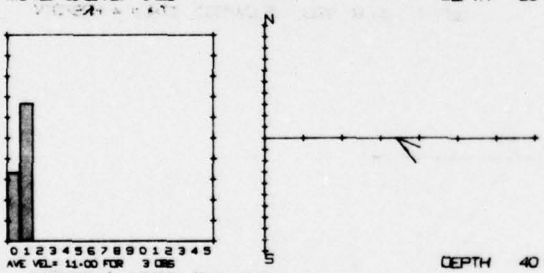
DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV



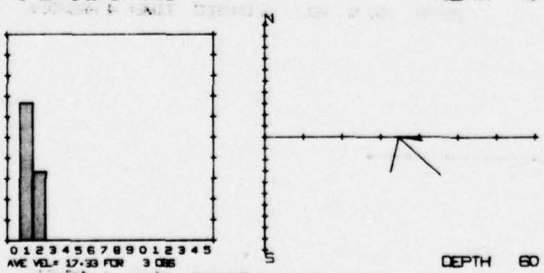
DEPTH 20 M VEL 5 CM/SEC TIME= 4 HRS/DIV



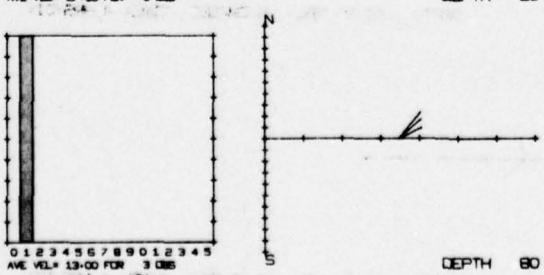
DEPTH 30 M VEL 5 CM/SEC TIME= 4 HRS/DIV



DEPTH 40 M VEL 5 CM/SEC TIME= 4 HRS/DIV

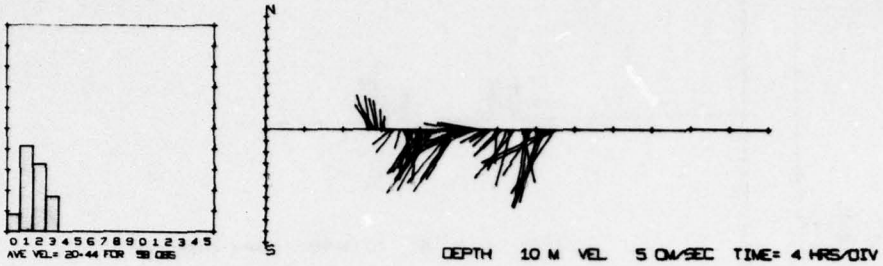


DEPTH 60 M VEL 5 CM/SEC TIME= 4 HRS/DIV

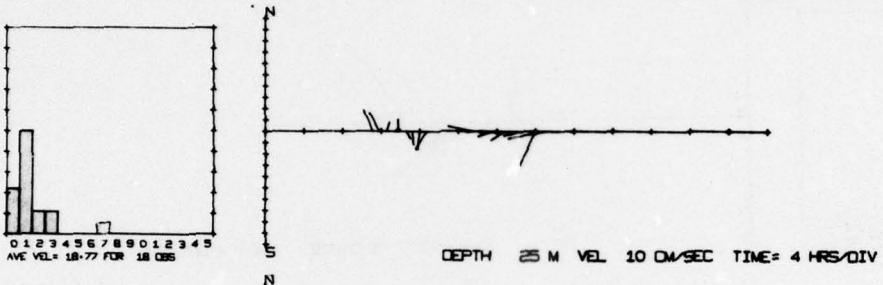


DEPTH 80 M VEL 5 CM/SEC TIME= 4 HRS/DIV

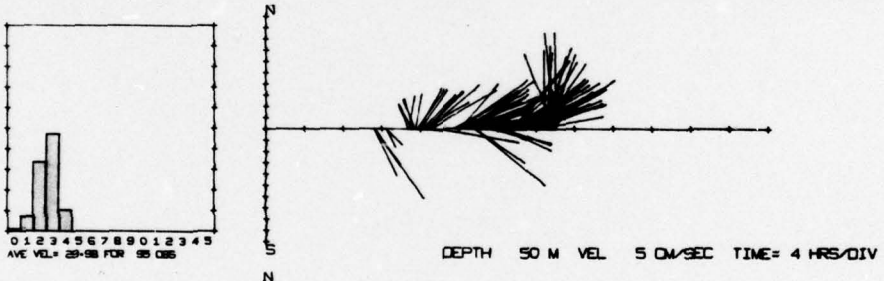
STATION 1024 59 12.5 -9 5.0



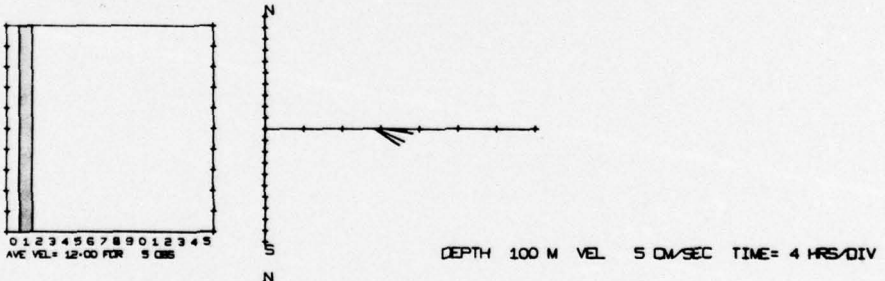
DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV



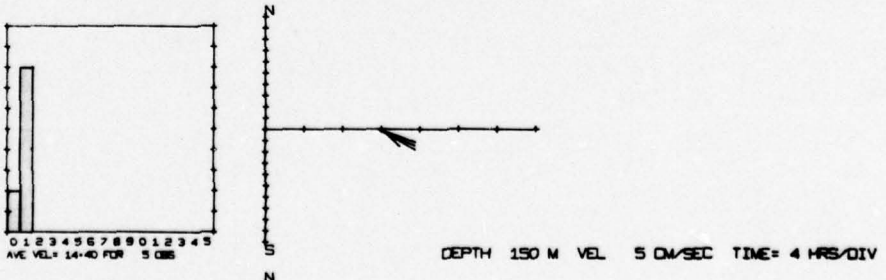
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV



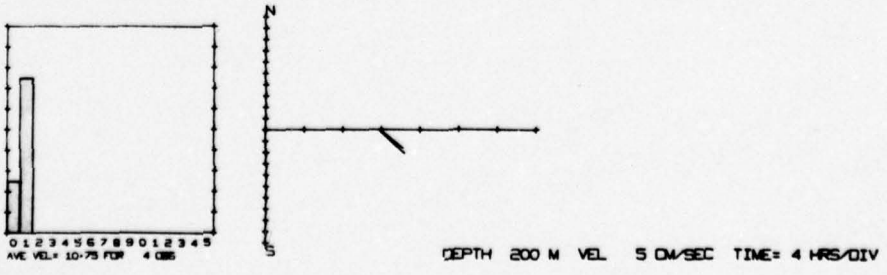
DEPTH 50 M VEL 5 CM/SEC TIME= 4 HRS/DIV



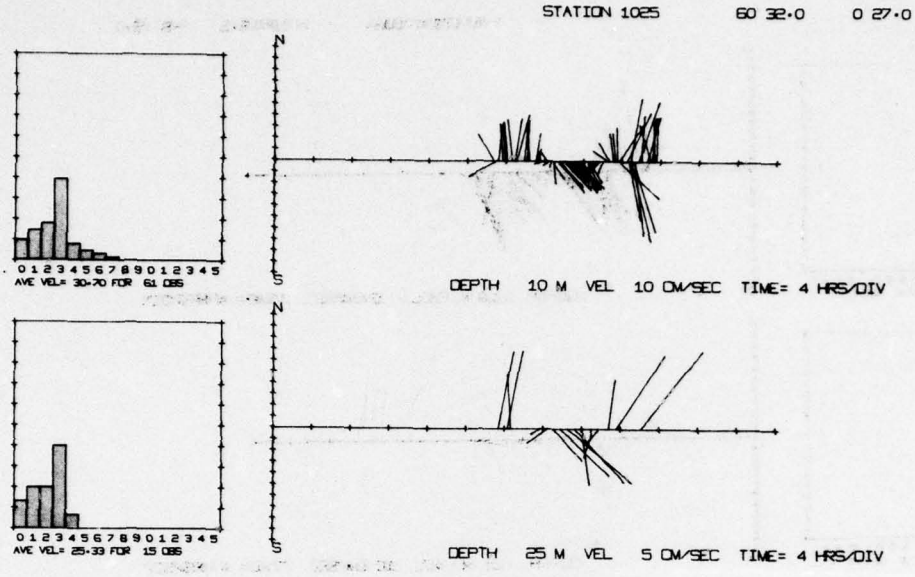
DEPTH 100 M VEL 5 CM/SEC TIME= 4 HRS/DIV



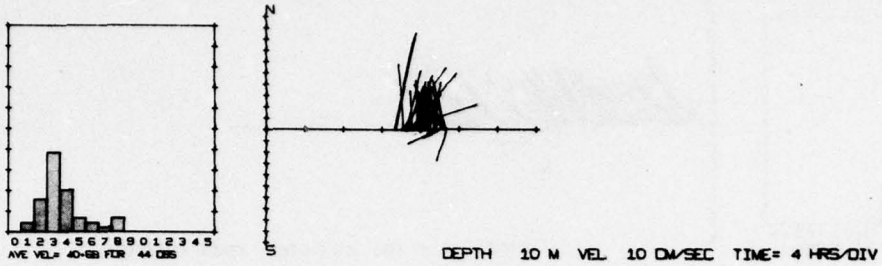
DEPTH 150 M VEL 5 CM/SEC TIME= 4 HRS/DIV

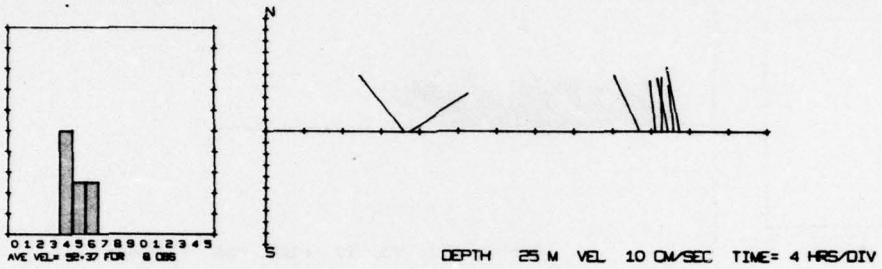


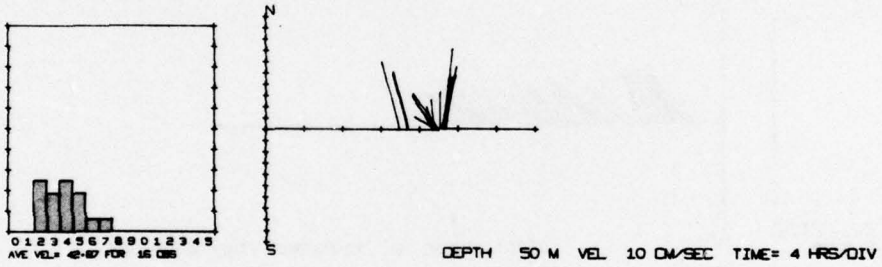
DEPTH 200 M VEL 5 CM/SEC TIME= 4 HRS/DIV

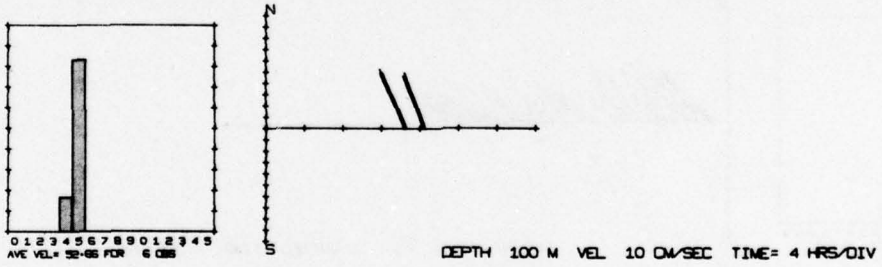

STATION 1025 60 32.0 0 27.0
N
S
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 30.70 FOR 61 OBS
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV
N
S
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 25.33 FOR 15 OBS
DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV

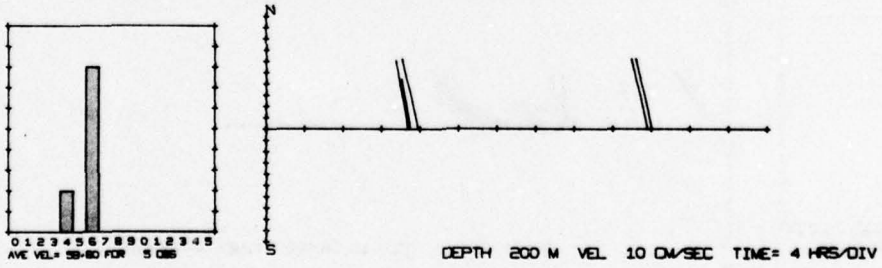
STATION 1035 60 38·0 4 31·0



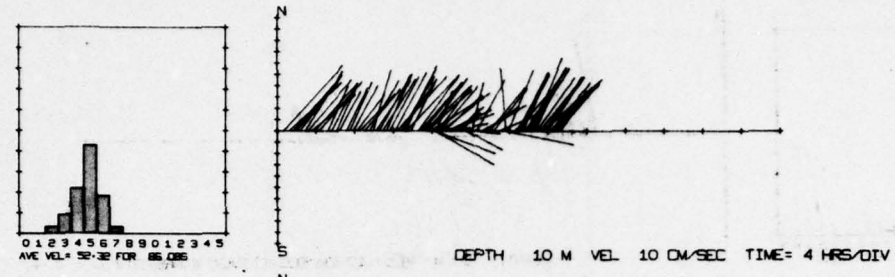




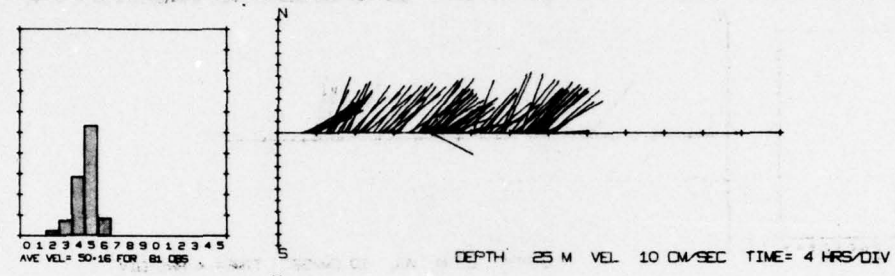




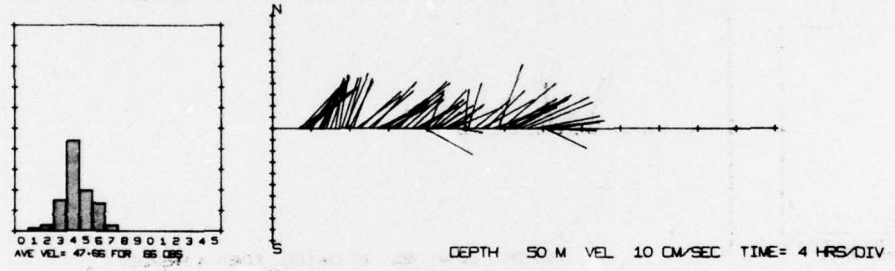
STATION 1027 61 12·0 -2 2·0



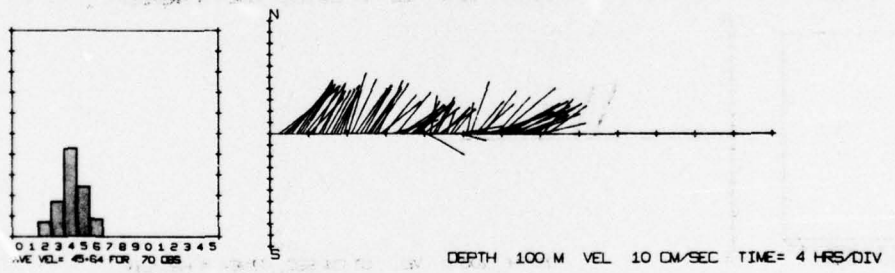
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV



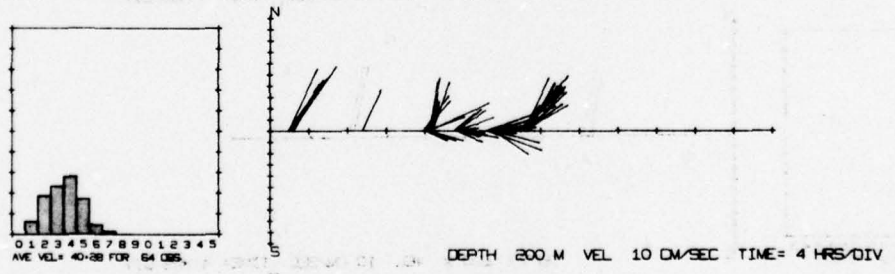
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV



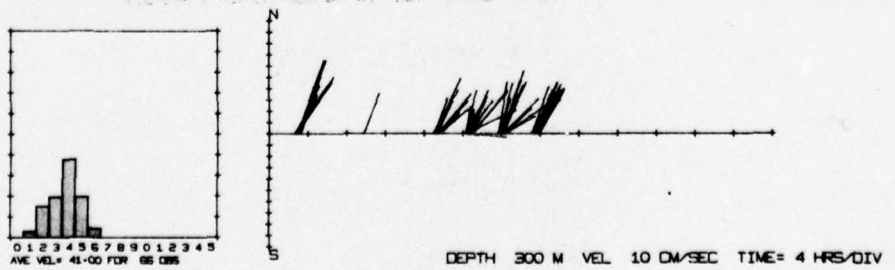
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV



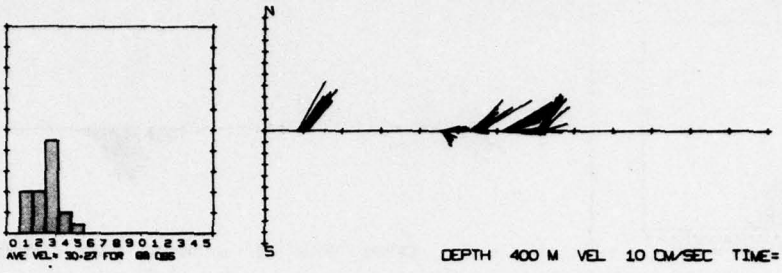
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV



DEPTH 200 M VEL 10 CM/SEC TIME= 4 HRS/DIV

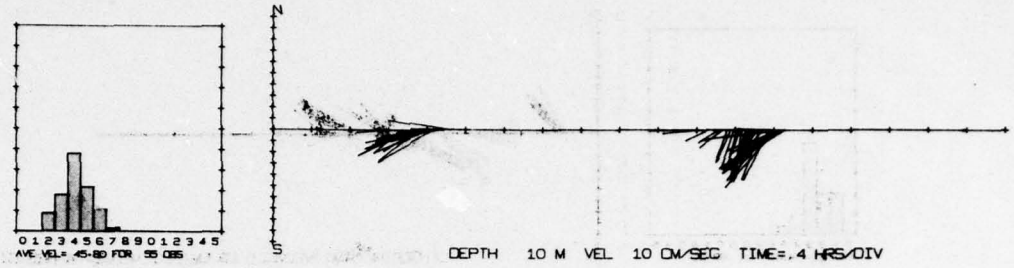


DEPTH 300 M VEL 10 CM/SEC TIME= 4 HRS/DIV

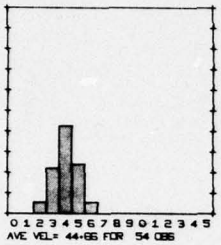


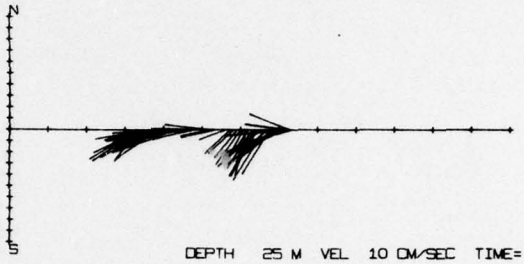
DEPTH 400 M VEL 10 CM/SEC TIME= 4 HRS/DIV

STATION 1028 61 21.0 -3 11.0

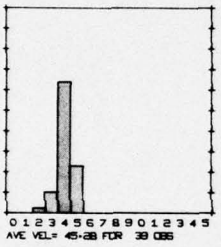


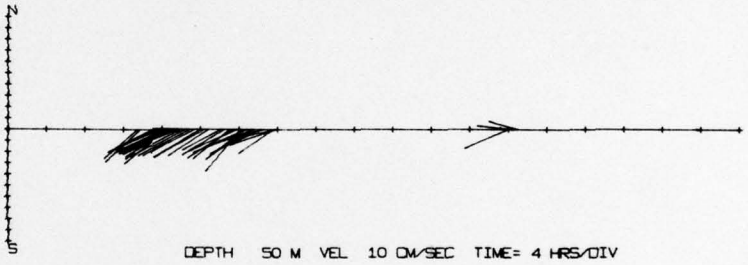
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV



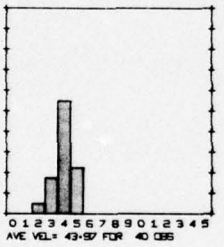


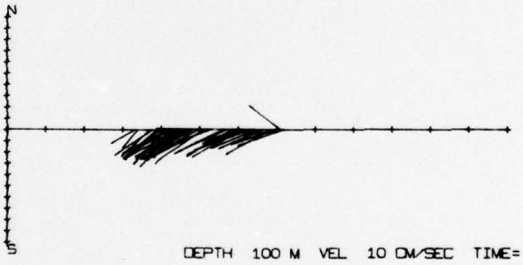
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV



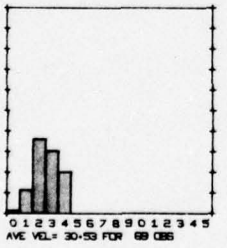


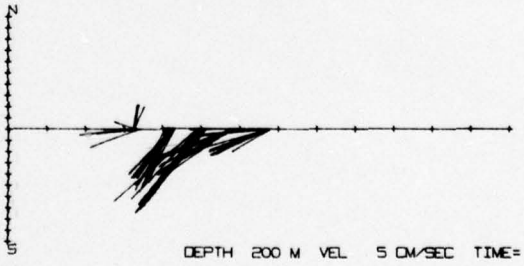
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV



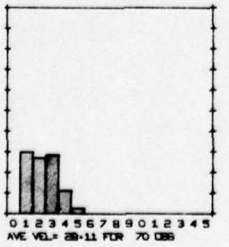


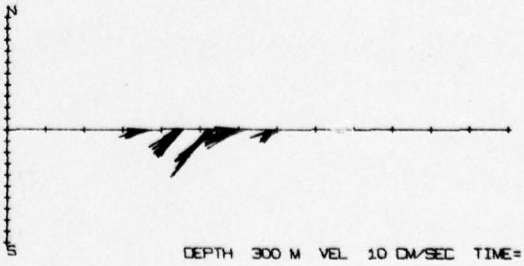
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV



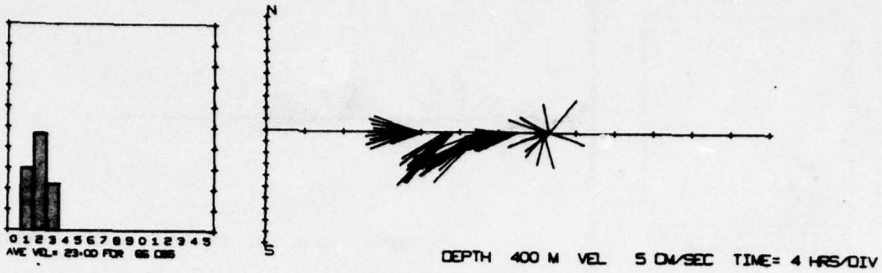


DEPTH 200 M VEL 5 CM/SEC TIME= 4 HRS/DIV

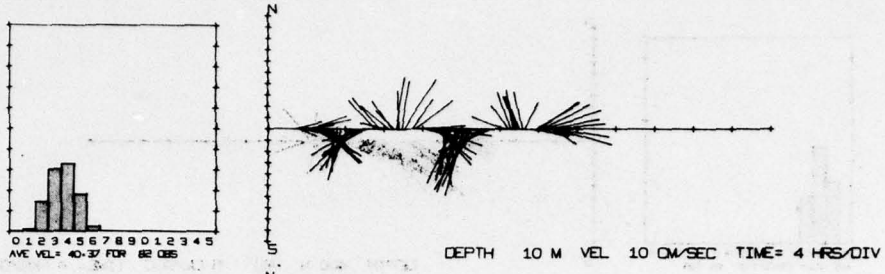


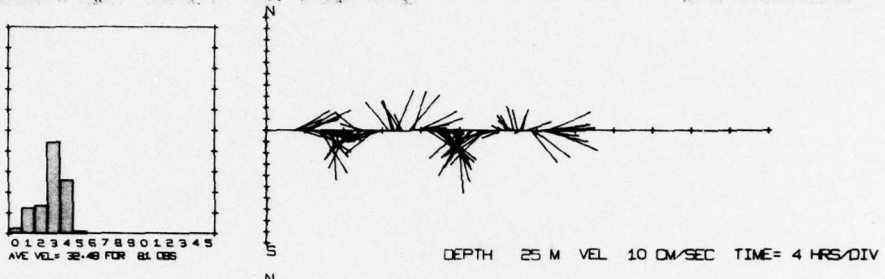


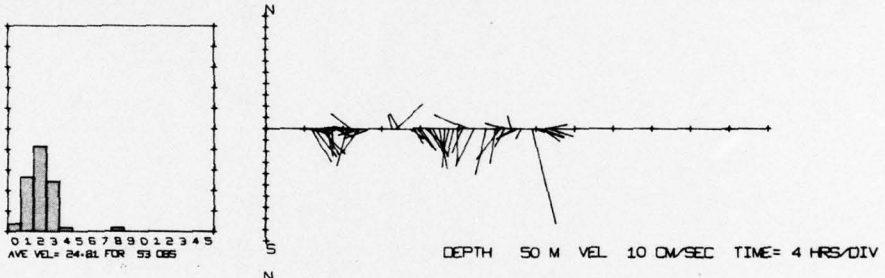
DEPTH 300 M VEL 10 CM/SEC TIME= 4 HRS/DIV

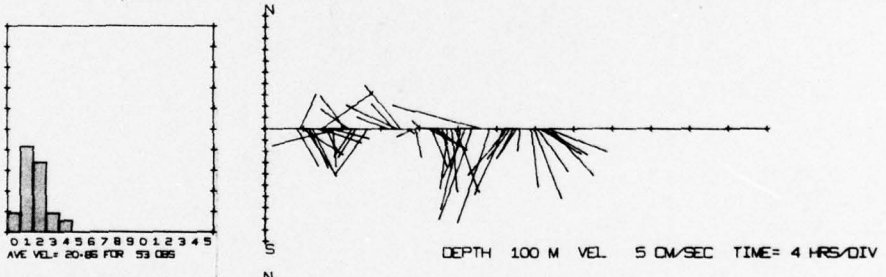

N
S
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 23.00 FOR 65 OBS
DEPTH 400 M VEL 5 CM/SEC TIME= 4 HRS/DIV

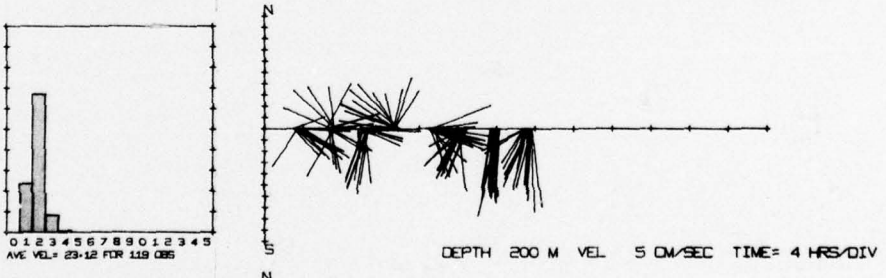
STATION 1029 61 32.0 -4 33.0

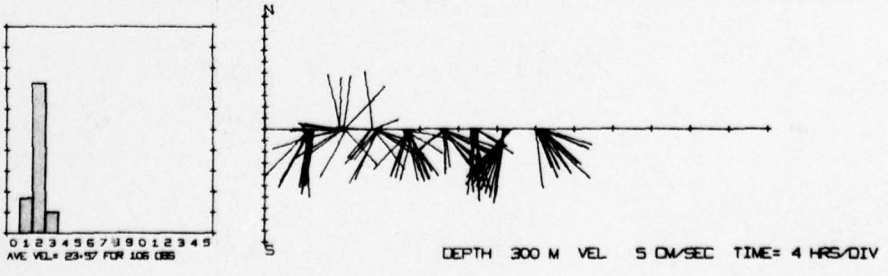


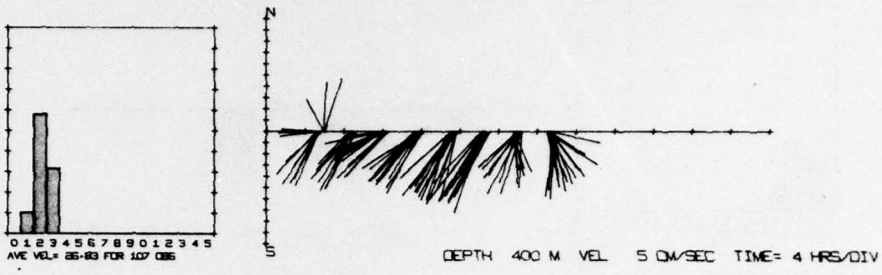




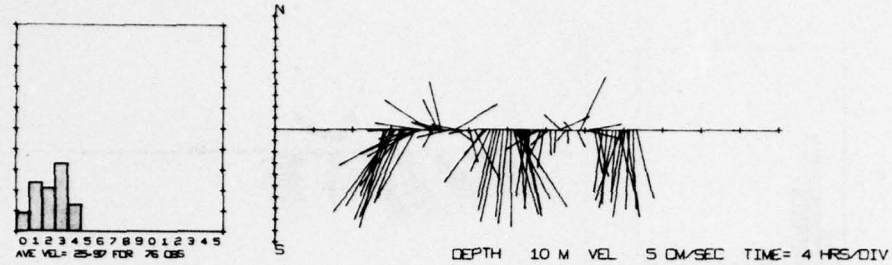


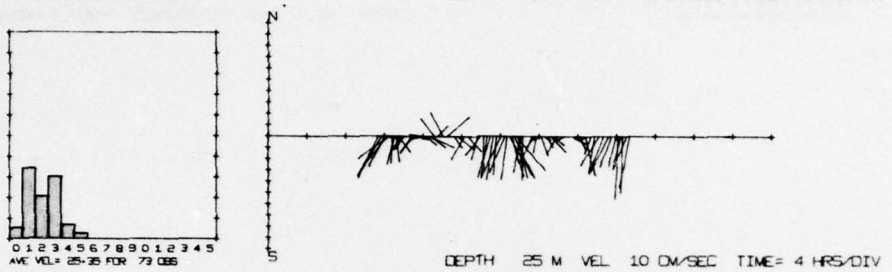


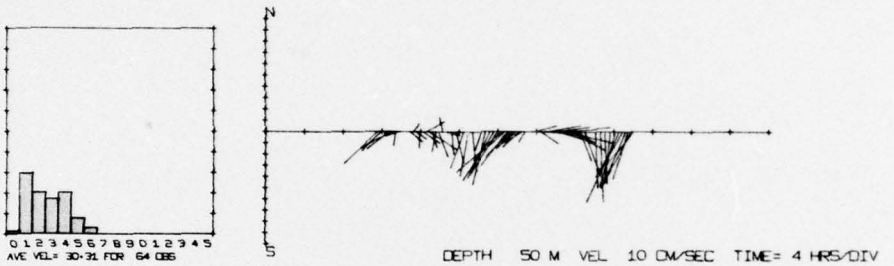


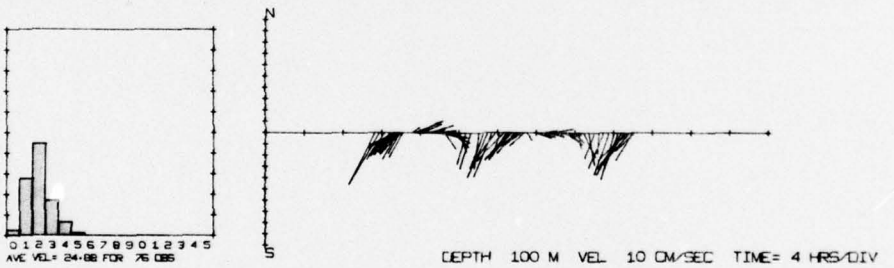

0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 26.83 FOR 107 OBS
N
S
DEPTH 400 M VEL 5 CM/SEC TIME= 4 HRS/DIV

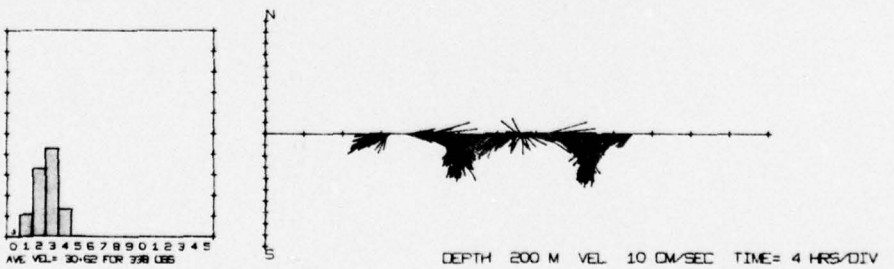
STATION 1030 61 34·0 -4 49·0



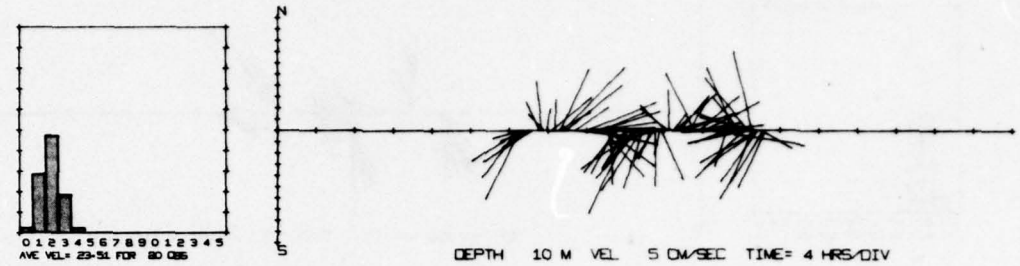


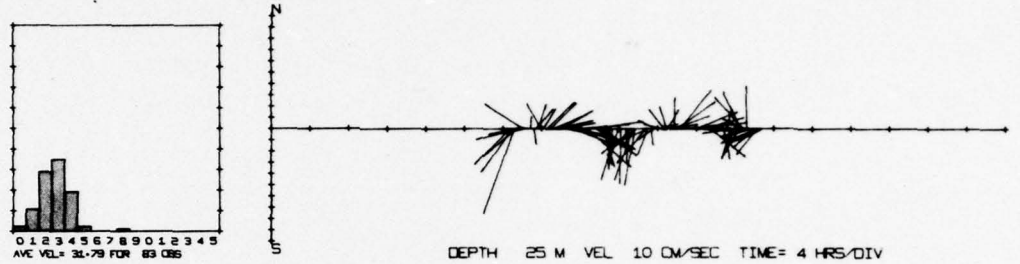


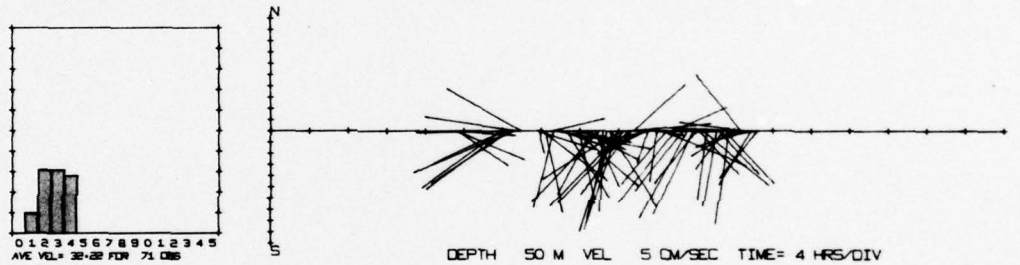


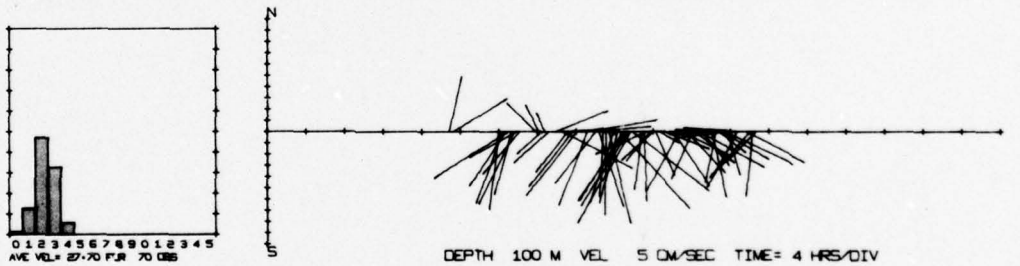


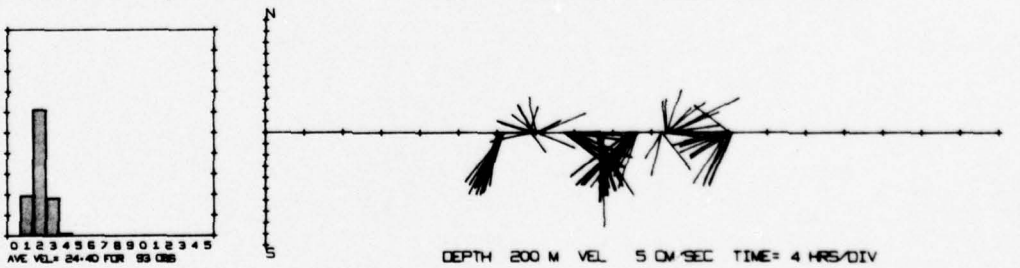
STATION 1031 61 31.0 -4 27.0

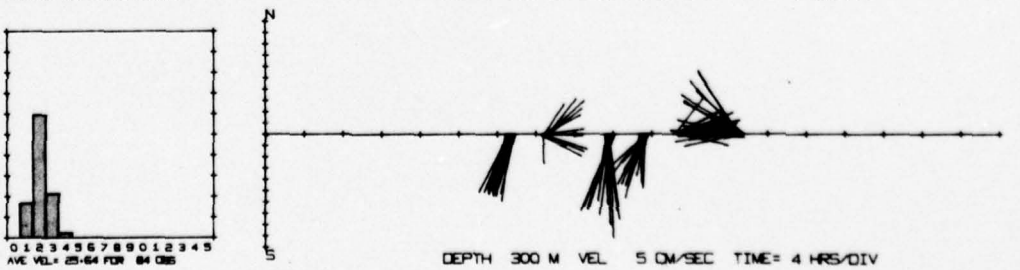


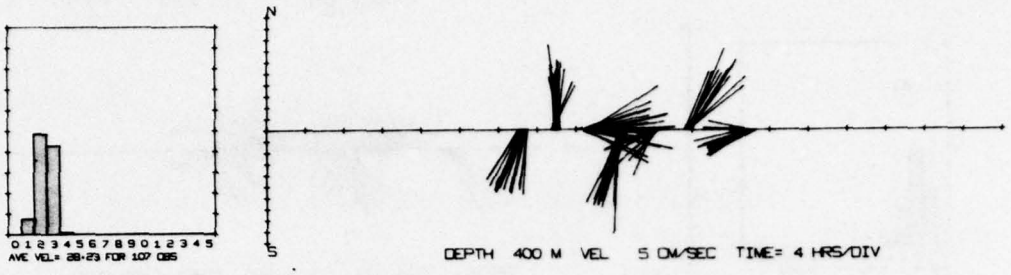




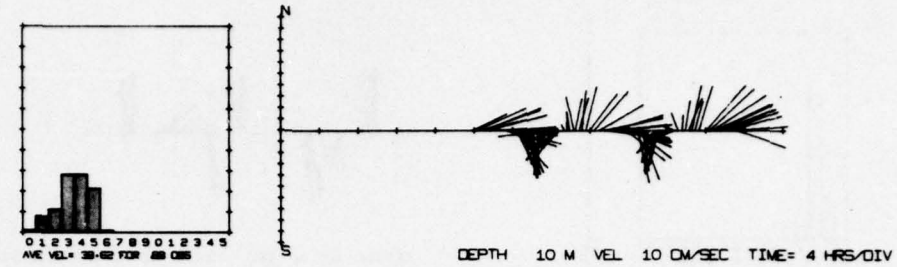




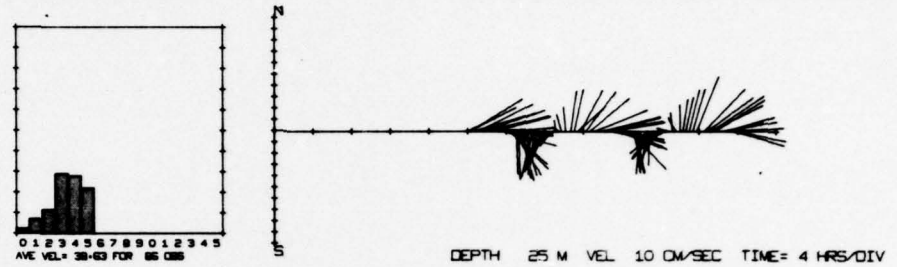



N
S
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 28.23 FOR 107 OBS
DEPTH 400 M VEL 5 CM/SEC TIME= 4 HRS/DIV

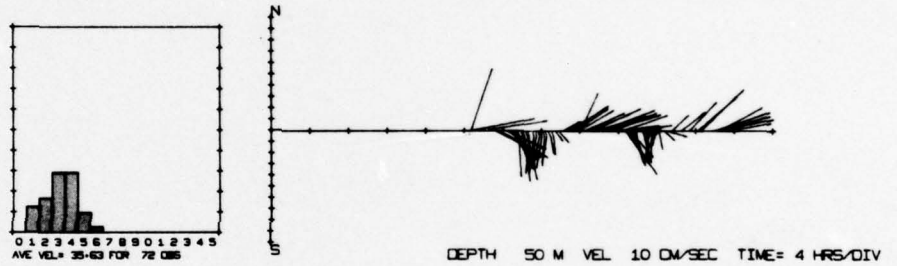
STATION 1032 61 19.0 -2 47.0



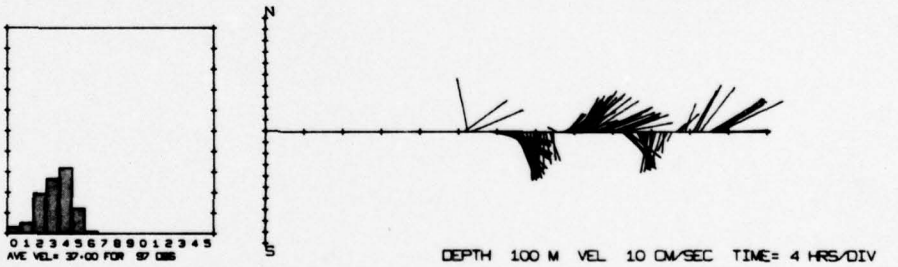
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV



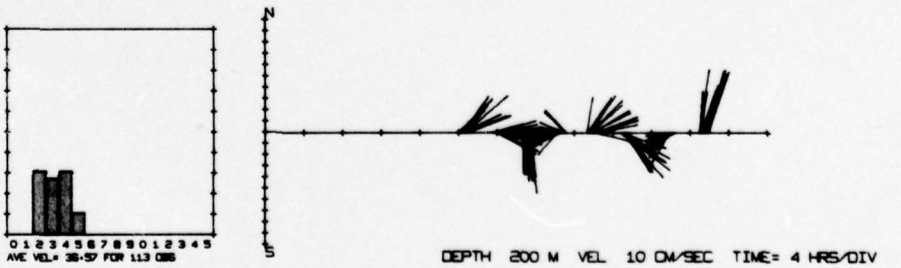
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV



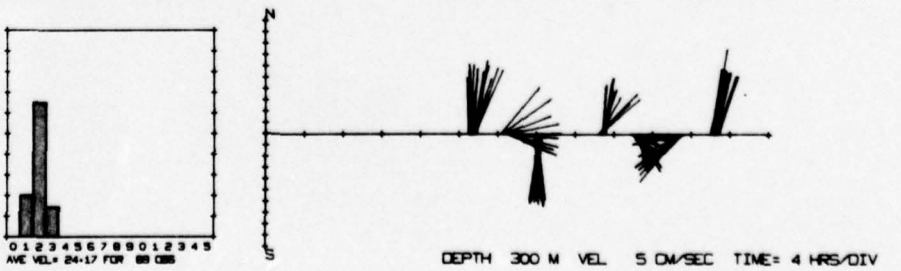
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV



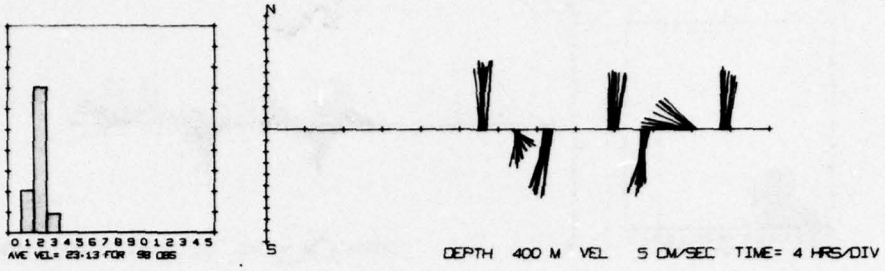
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV



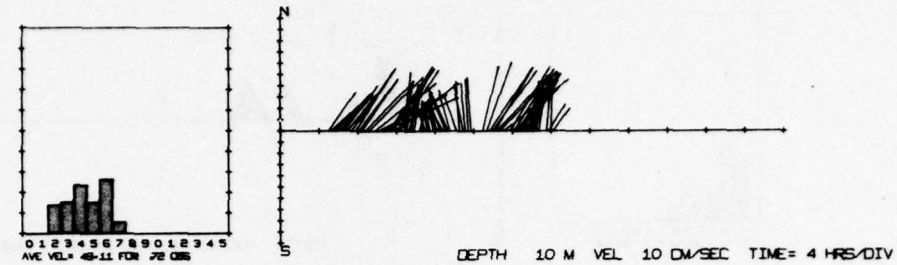
DEPTH 200 M VEL 10 CM/SEC TIME= 4 HRS/DIV



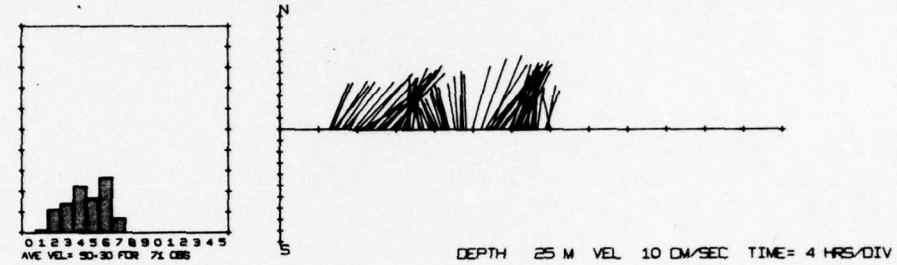
DEPTH 300 M VEL 5 CM/SEC TIME= 4 HRS/DIV


0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 23.13 FOR 98 OBS
N
S
DEPTH 400 M VEL 5 CM/SEC TIME= 4 HRS/DIV

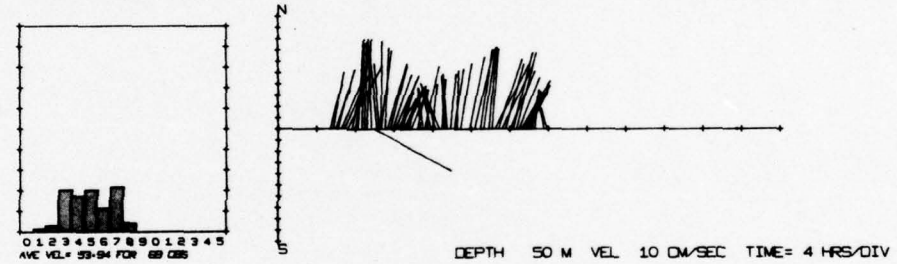
STATION 1039 61 16.0 -2 26.0



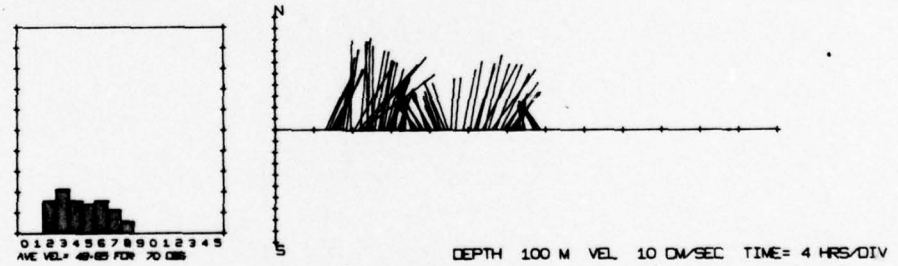
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV



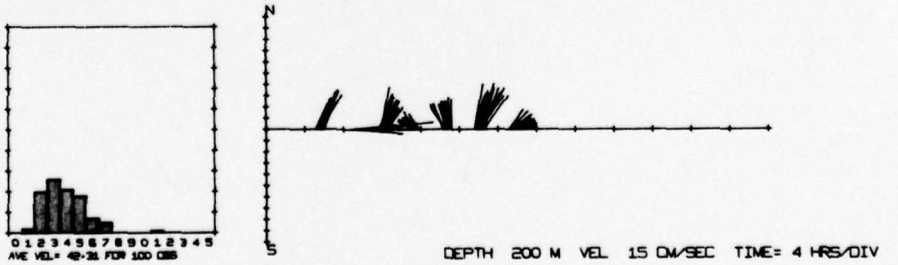
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV



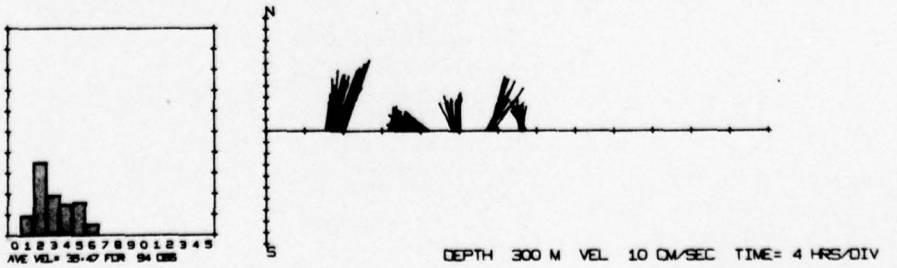
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV



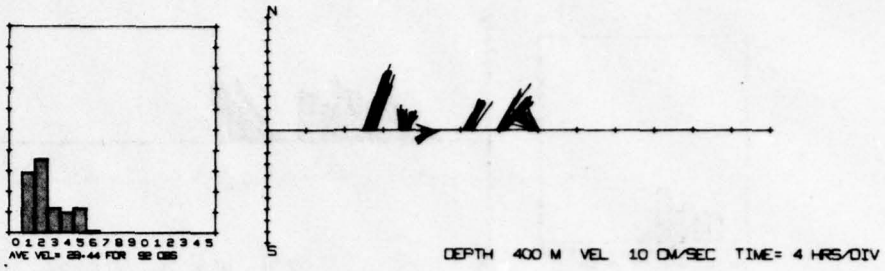
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV



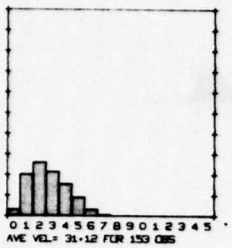
DEPTH 200 M VEL 15 CM/SEC TIME= 4 HRS/DIV

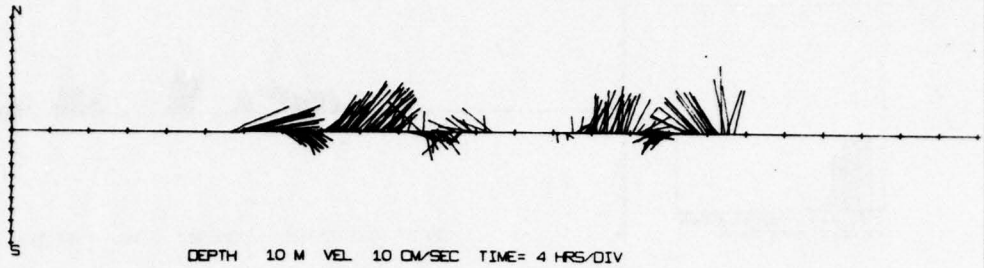


DEPTH 300 M VEL 10 CM/SEC TIME= 4 HRS/DIV

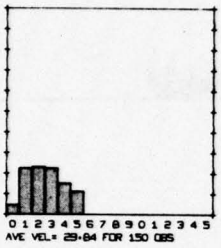

N
S
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
AVE VEL= 29.44 FOR 92 OBS
DEPTH 400 M VEL 10 CM/SEC TIME= 4 HRS/DIV

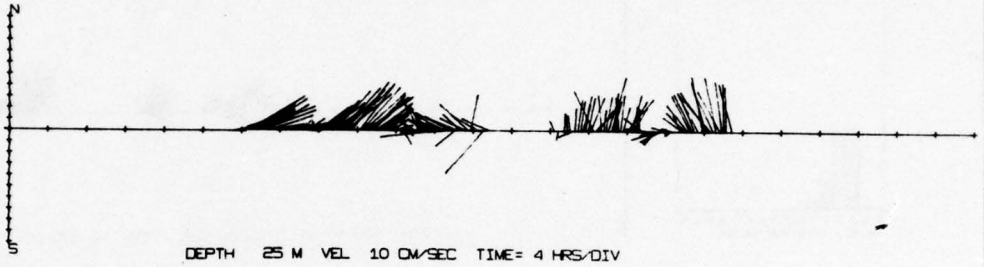
STATION 1034 61 9.0 -2 23.0



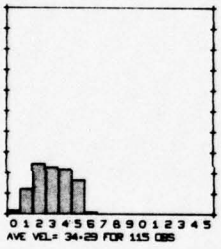


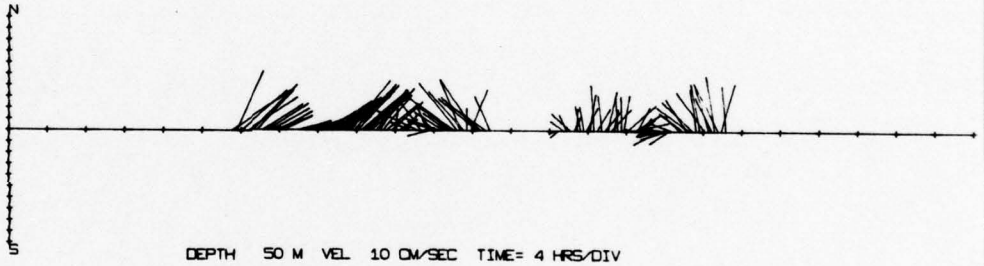
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV



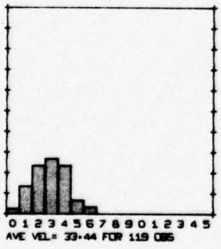


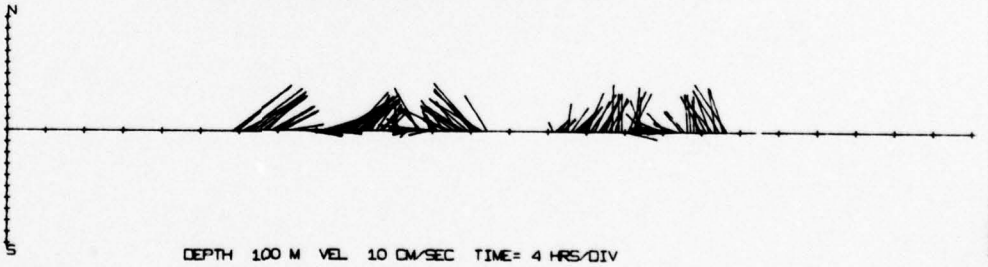
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV



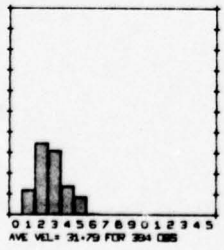


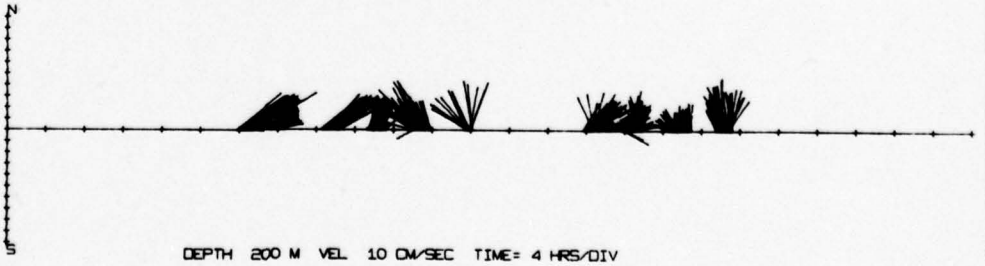
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV



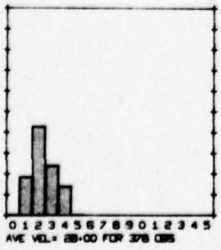


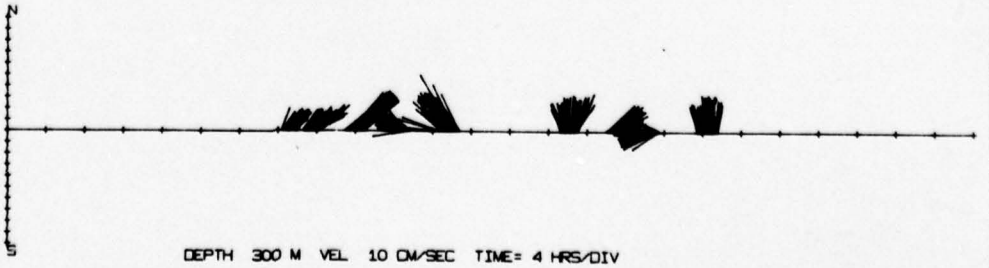
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV



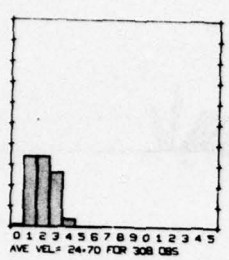


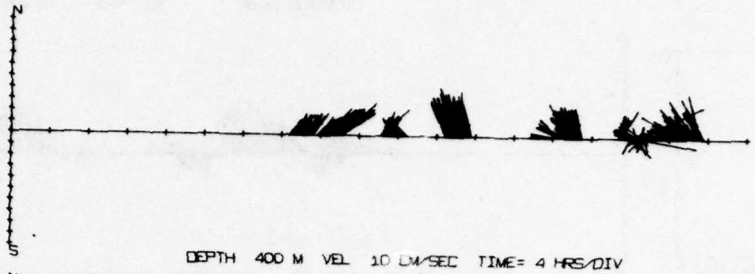
DEPTH 200 M VEL 10 CM/SEC TIME= 4 HRS/DIV



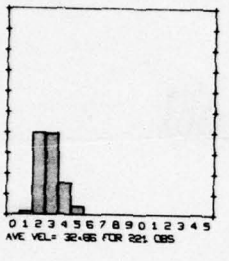


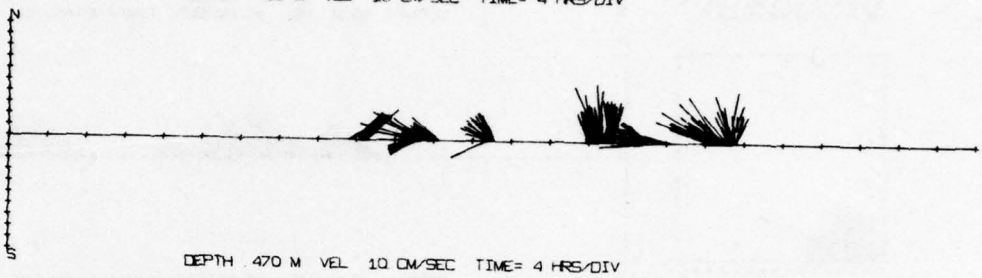
DEPTH 300 M VEL 10 CM/SEC TIME= 4 HRS/DIV





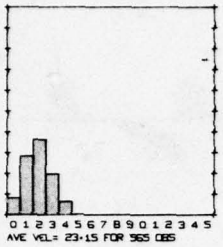
DEPTH 400 M VEL 10 CM/SEC TIME= 4 HRS/DIV

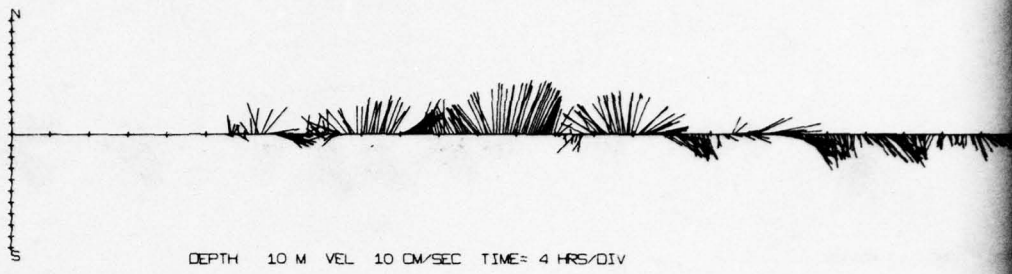




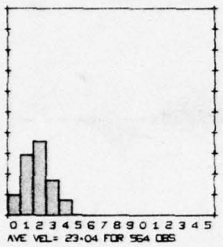
DEPTH 470 M VEL 10 CM/SEC TIME= 4 HRS/DIV

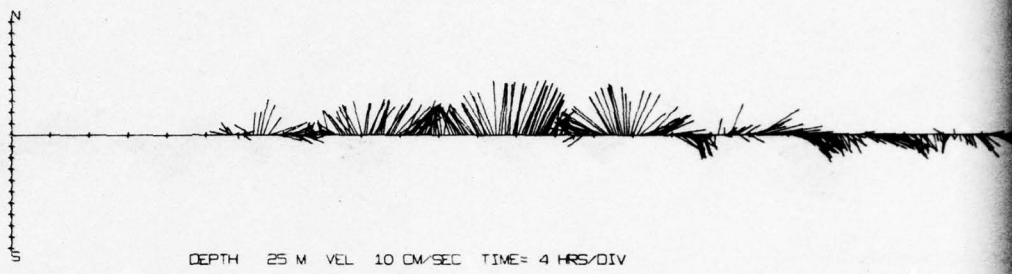
STATION 1035 61 9.0 -2 23.0



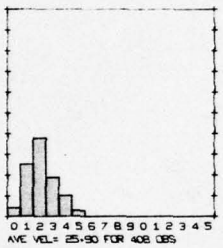


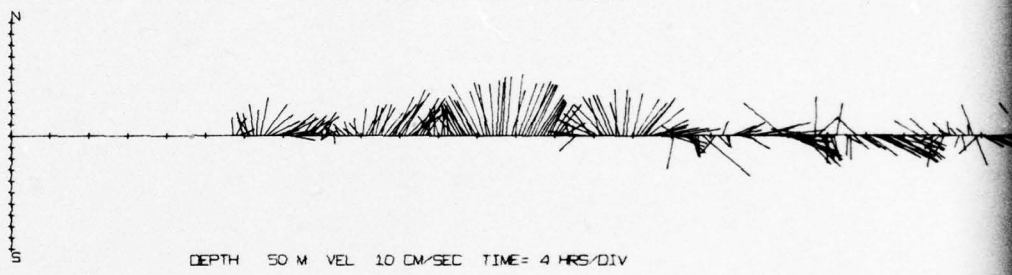
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV



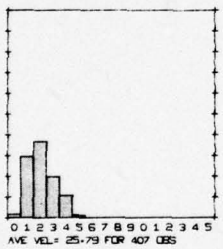


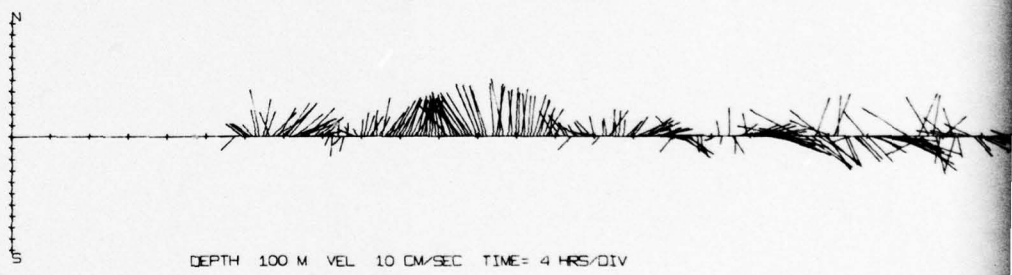
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV



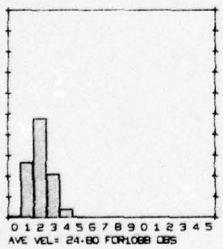


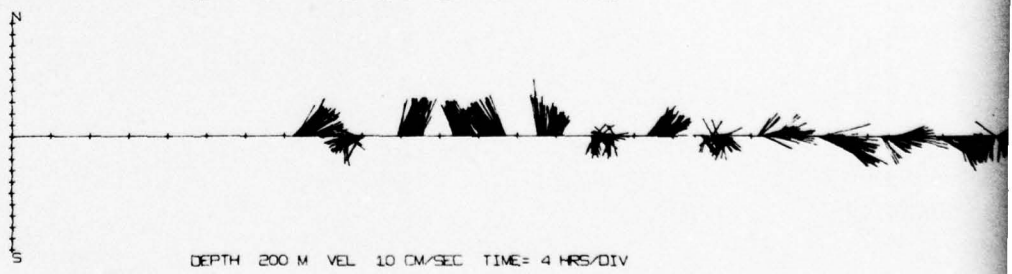
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV



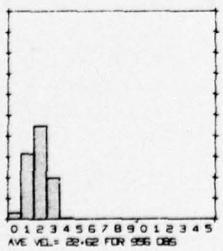


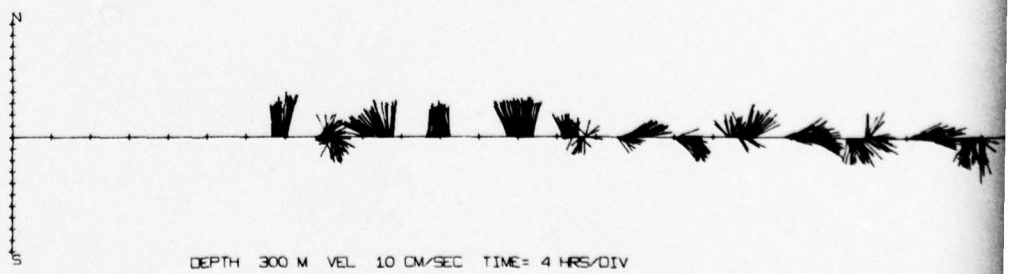
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV





DEPTH 200 M VEL 10 CM/SEC TIME= 4 HRS/DIV





DEPTH 300 M VEL 10 CM/SEC TIME= 4 HRS/DIV

STATION 1035 61 9.0 -2 23.0

10 M VEL 10 CM/SEC TIME= 4 HRS/DIV

25 M VEL 10 CM/SEC TIME= 4 HRS/DIV

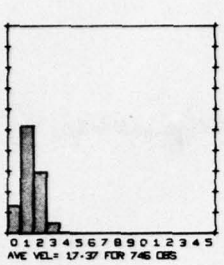
50 M VEL 10 CM/SEC TIME= 4 HRS/DIV

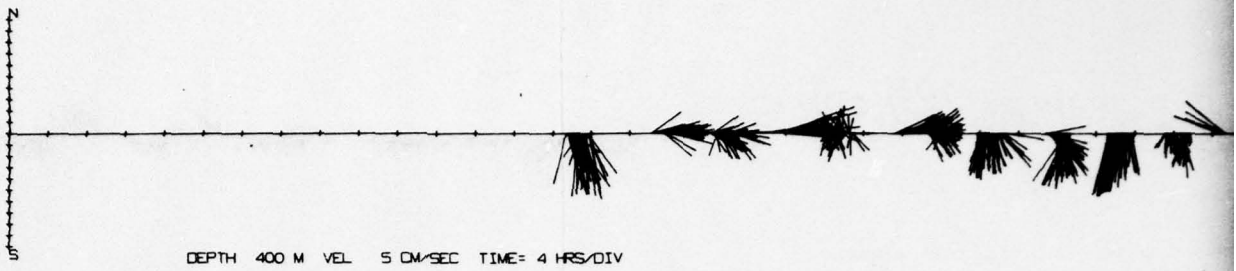
100 M VEL 10 CM/SEC TIME= 4 HRS/DIV

200 M VEL 10 CM/SEC TIME= 4 HRS/DIV

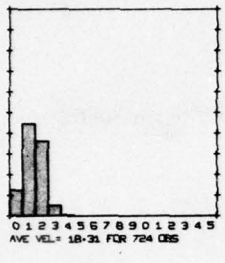
300 M VEL 10 CM/SEC TIME= 4 HRS/DIV

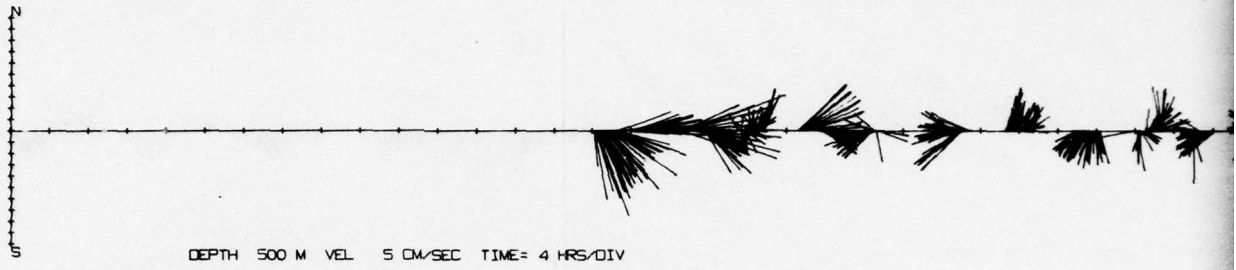
2



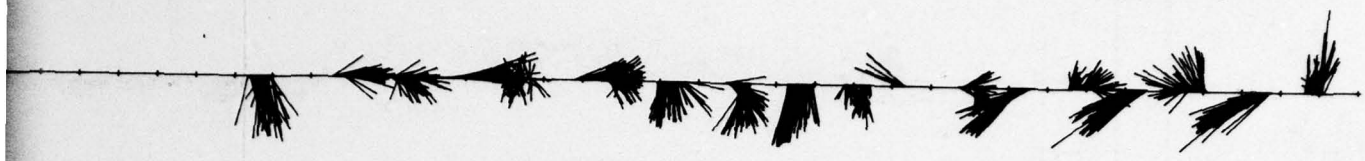


DEPTH 400 M VEL 5 CM/SEC TIME= 4 HRS/DIV

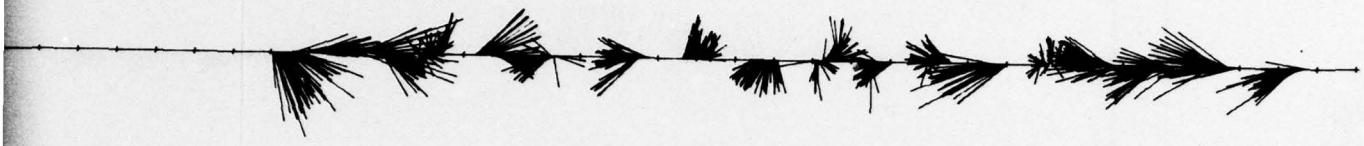




DEPTH 500 M VEL 5 CM/SEC TIME= 4 HRS/DIV



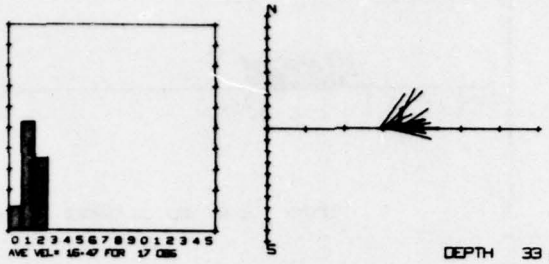
VEL 5 CM/SEC TIME= 4 HRS/DIV



VEL 5 CM/SEC TIME= 4 HRS/DIV

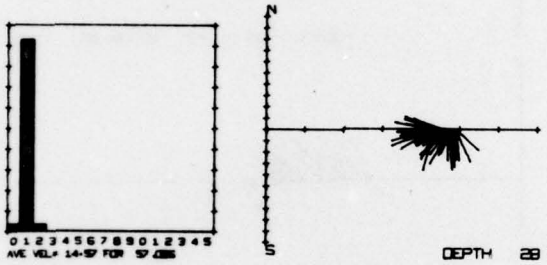
2

STATION 1036 61 4.0 -1 45.0



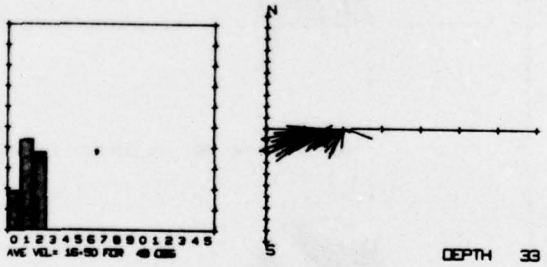
DEPTH 33 M VEL 5 CM/SEC TIME= 4 HRS/DIV

STATION 1037 61 4.0 -1 38.0



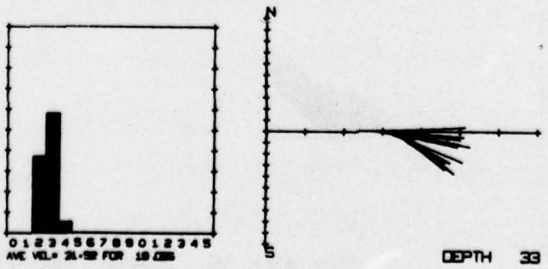
DEPTH 28 M VEL 5 CM/SEC TIME= 4 HRS/DIV

STATION 1038 61 4.0 -1 31.0



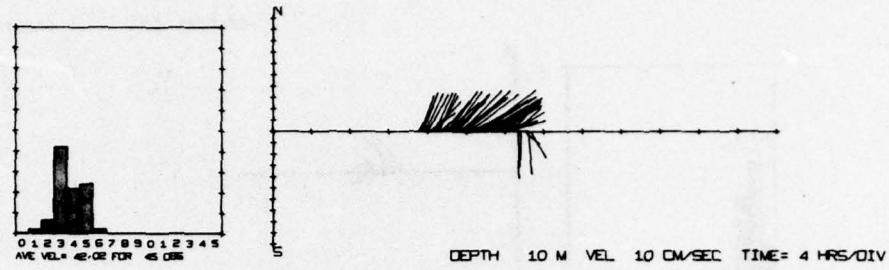
DEPTH 33 M VEL 5 CM/SEC TIME= 4 HRS/DIV

STATION 1039 60 58.0 -1 24.0

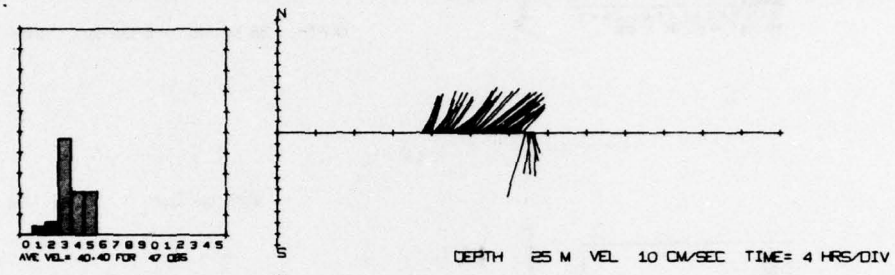


DEPTH 33 M VEL 5 CM/SEC TIME= 4 HRS/DIV

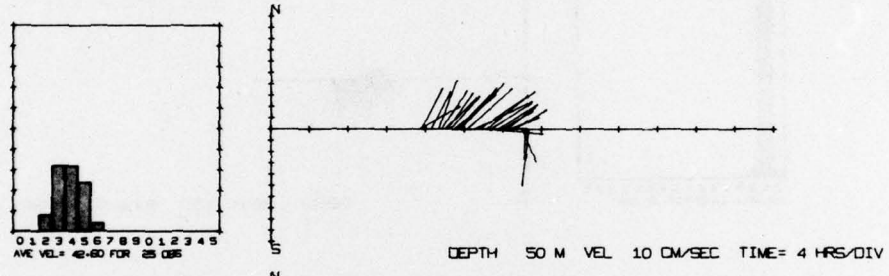
STATION 1040 61 9.0 -2 23.0



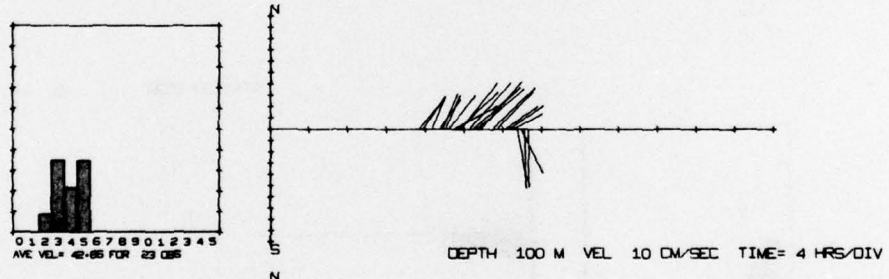
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV



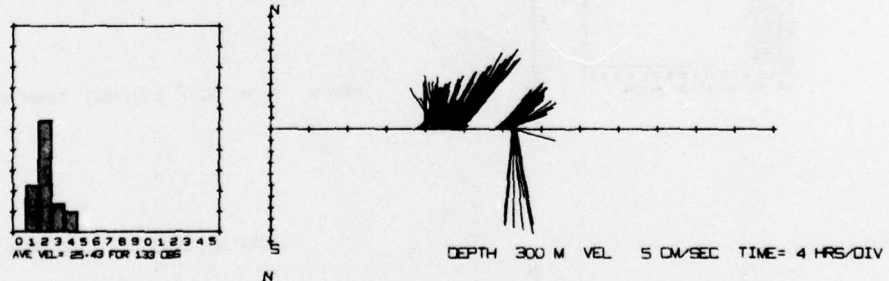
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV



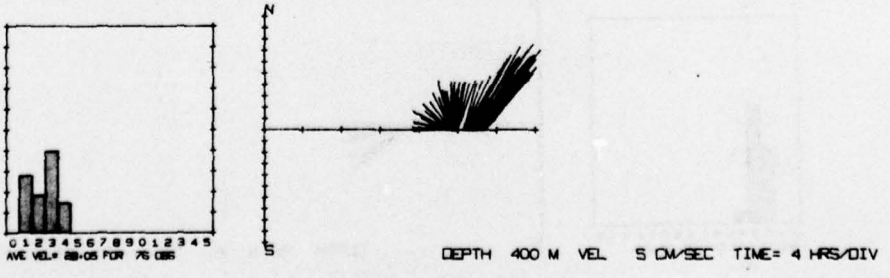
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV



DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV

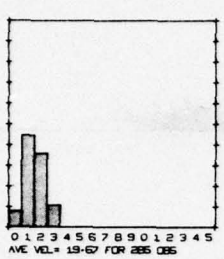


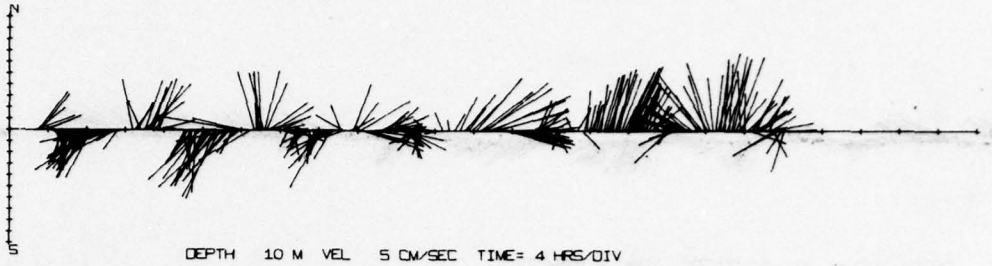
DEPTH 300 M VEL 5 CM/SEC TIME= 4 HRS/DIV



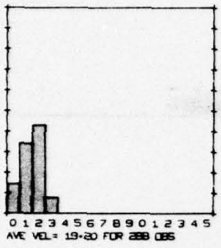
DEPTH 400 M VEL 5 CM/SEC TIME= 4 HRS/DIV

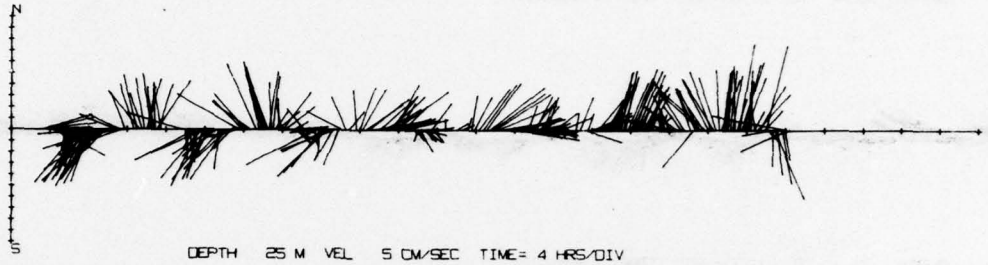
STATION 1041 61 9.0 -2 23.0



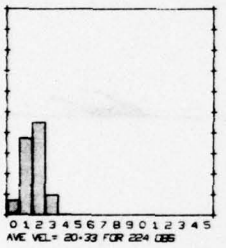


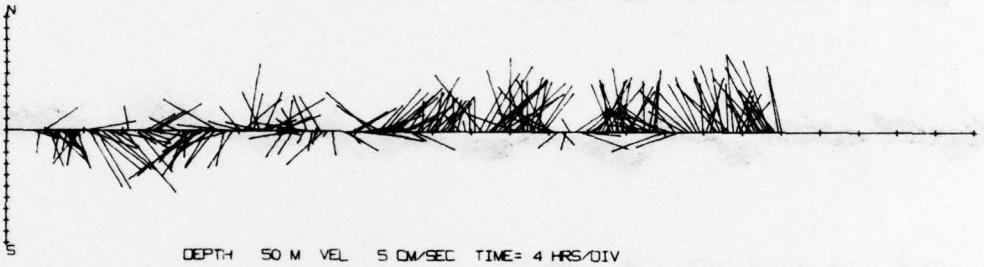
DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV



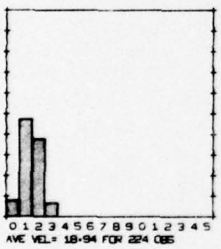


DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV

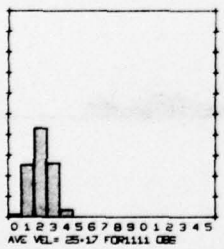




DEPTH 50 M VEL 5 CM/SEC TIME= 4 HRS/DIV

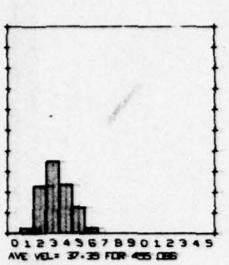


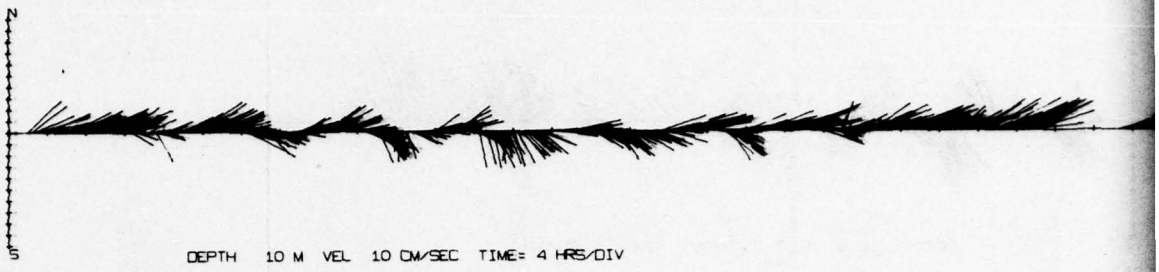
DEPTH 100 M VEL 5 CM/SEC TIME= 4 HRS/DIV



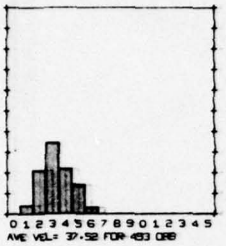
DEPTH 450 M VEL 10 CM/SEC TIME= 4 HRS/DIV

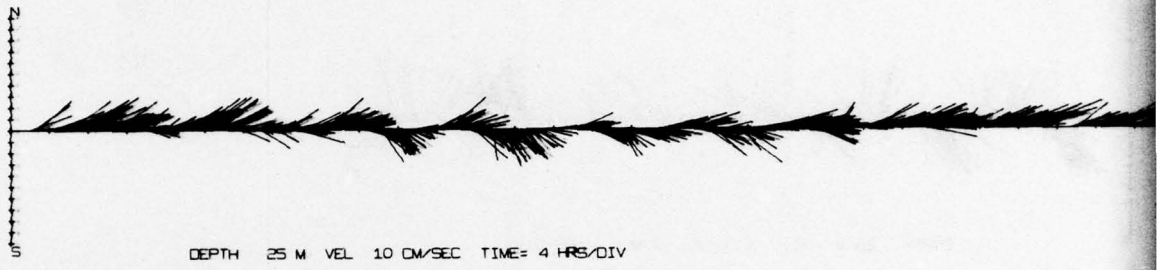
STATION 1042 61 9.0 -2 23.0



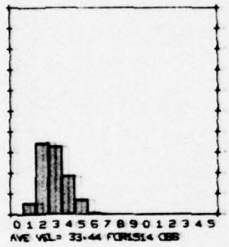


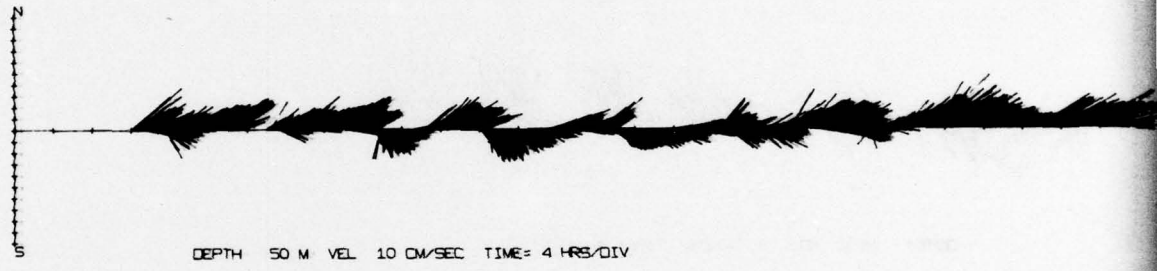
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV



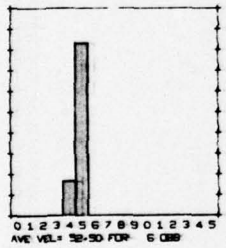


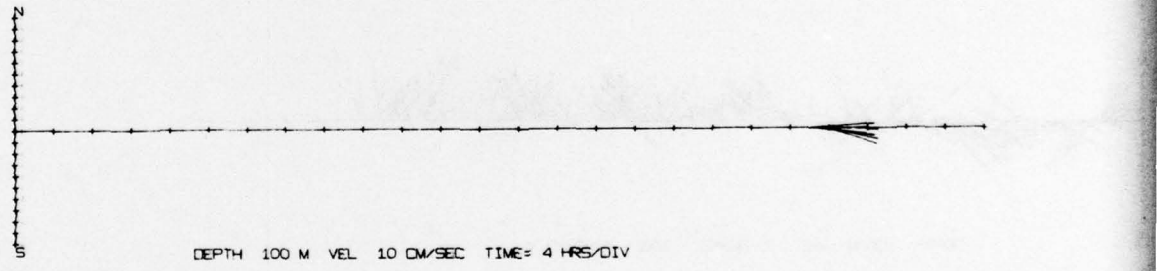
DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV



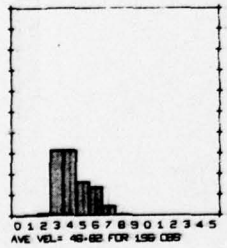


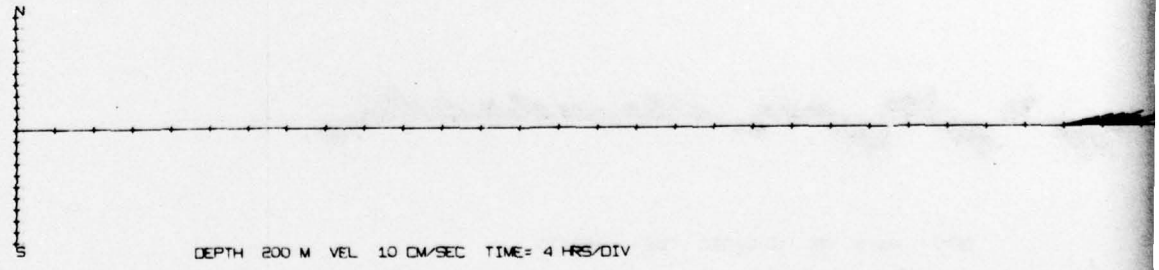
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV



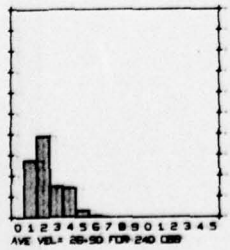


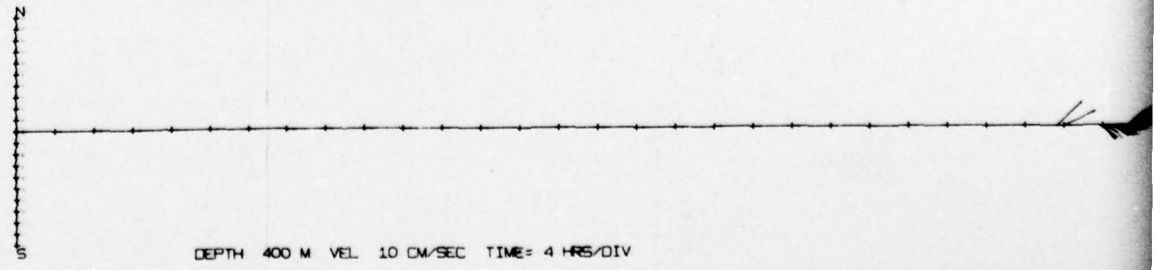
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV





DEPTH 200 M VEL 10 CM/SEC TIME= 4 HRS/DIV





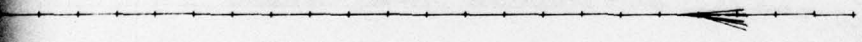
DEPTH 400 M VEL 10 CM/SEC TIME= 4 HRS/DIV

STATION 1042 61 9.0 -2 23.0

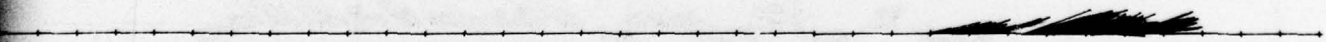
DEPTH 10 M VEL 10 CM/SEC TIME= 4 HRS/DIV

DEPTH 25 M VEL 10 CM/SEC TIME= 4 HRS/DIV

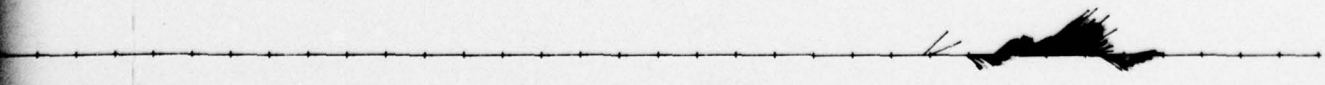
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV



DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV

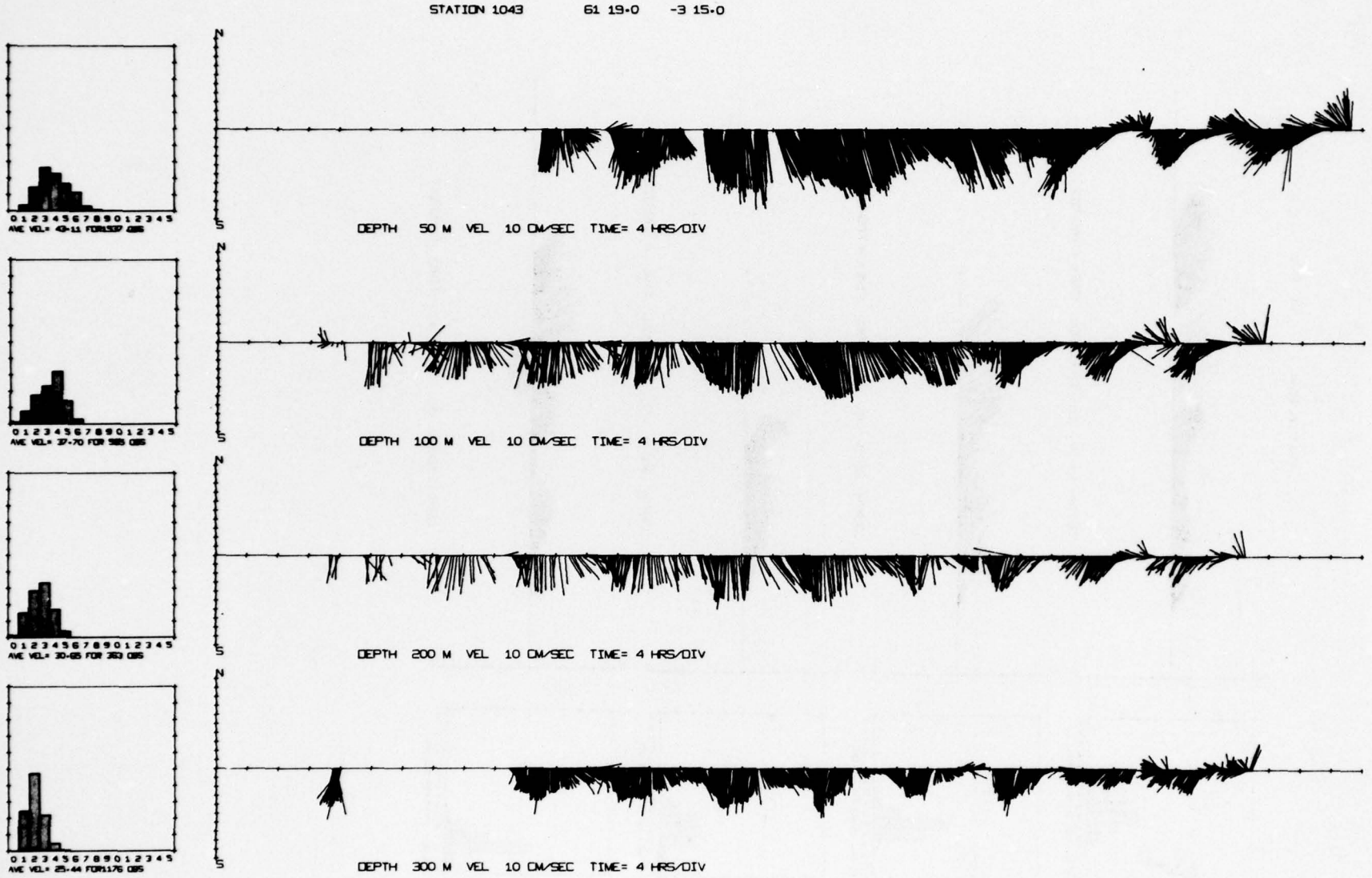


DEPTH 200 M VEL 10 CM/SEC TIME= 4 HRS/DIV

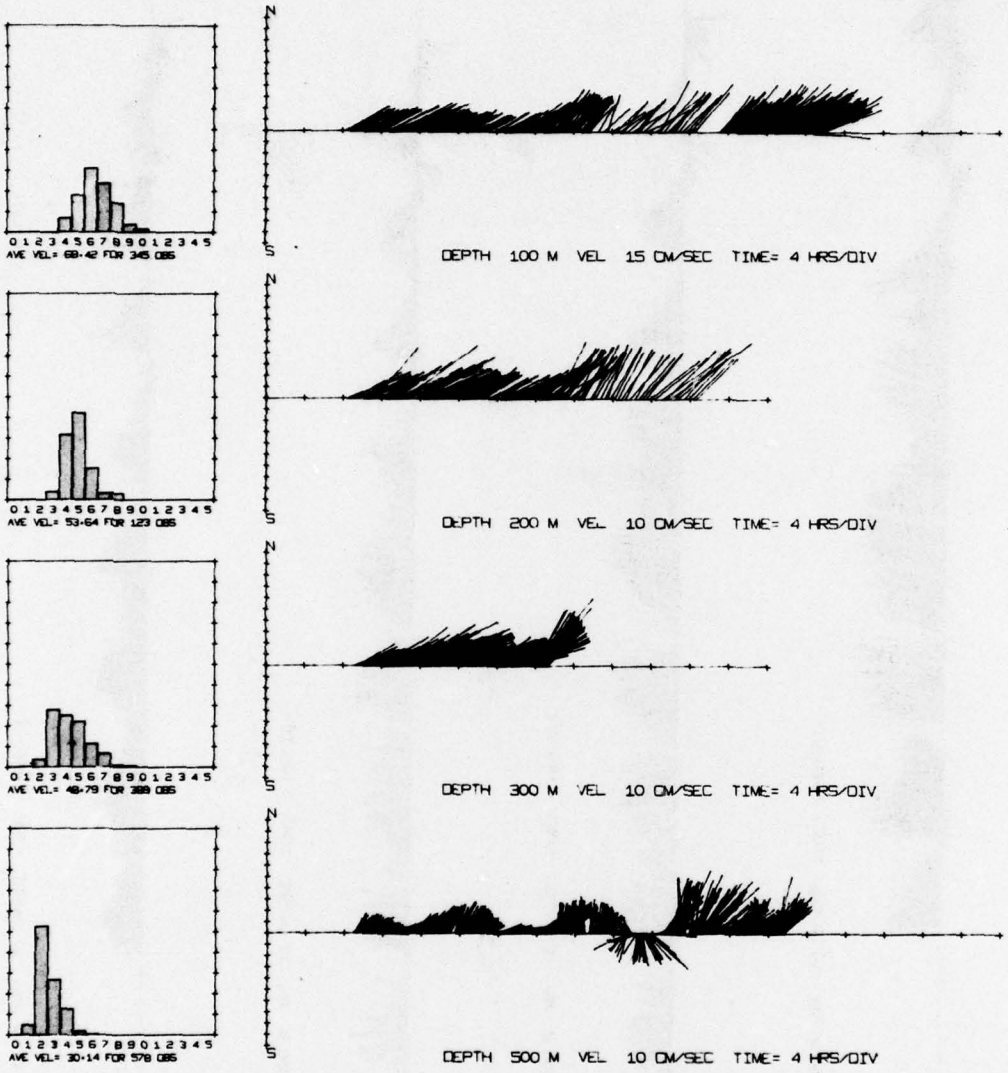


DEPTH 400 M VEL 10 CM/SEC TIME= 4 HRS/DIV

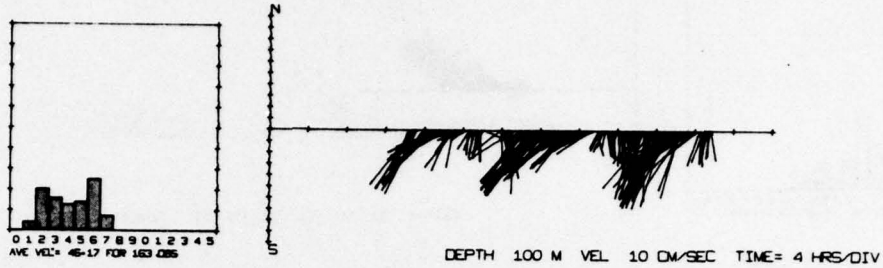
2


STATION 1043 61 19.0 -3 15.0
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
DEPTH 200 M VEL 10 CM/SEC TIME= 4 HRS/DIV
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
DEPTH 300 M VEL 10 CM/SEC TIME= 4 HRS/DIV

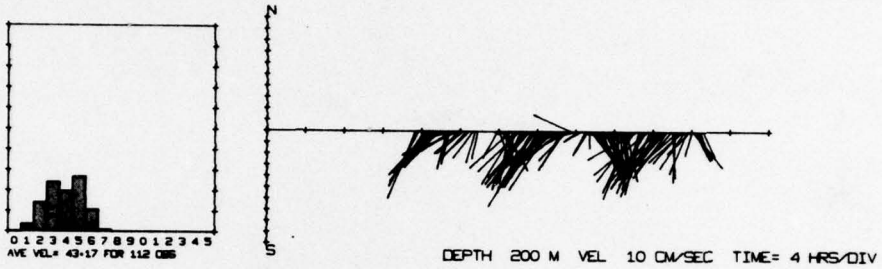
STATION 1044 61 8.0 -2 12.0



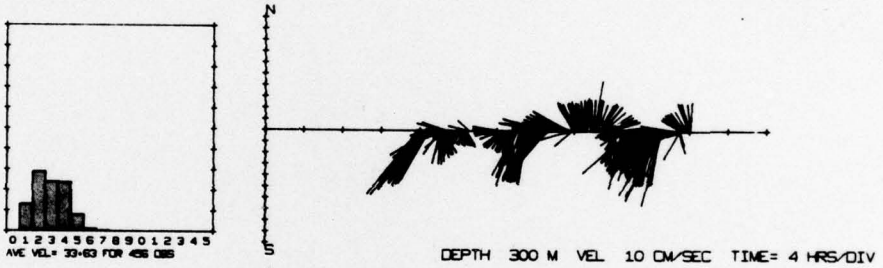
STATION 1045 61 30.0 -4 12.0



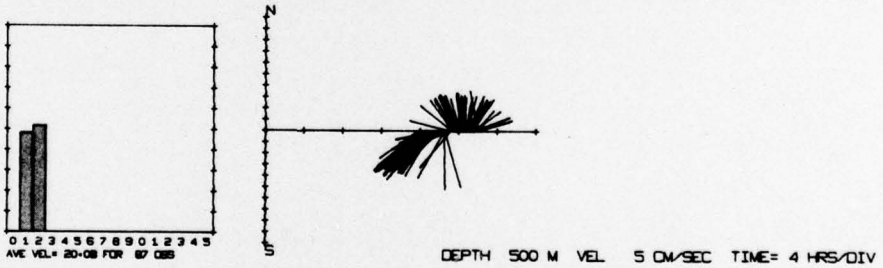
DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV



DEPTH 200 M VEL 10 CM/SEC TIME= 4 HRS/DIV

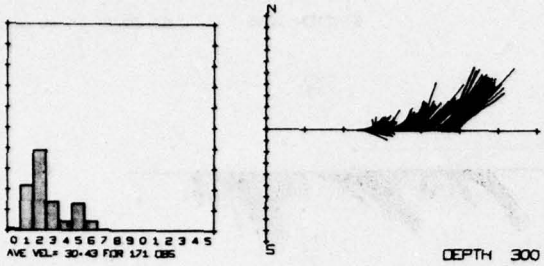


DEPTH 300 M VEL 10 CM/SEC TIME= 4 HRS/DIV



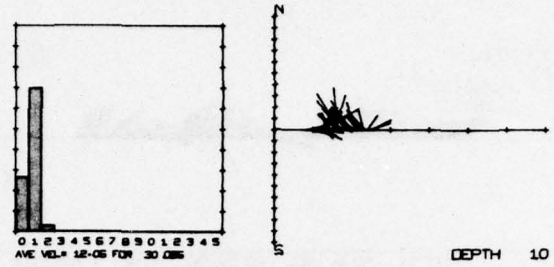
DEPTH 500 M VEL 5 CM/SEC TIME= 4 HRS/DIV

STATION 1046 61 9.0 -2 23.0

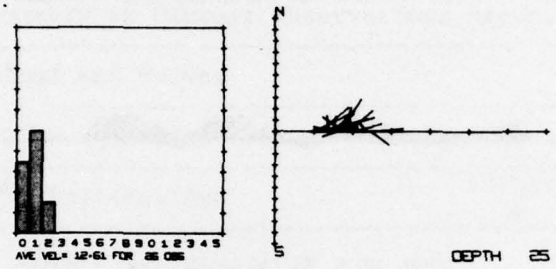


DEPTH 300 M VEL 10 CM/SEC TIME= 4 HRS/DIV

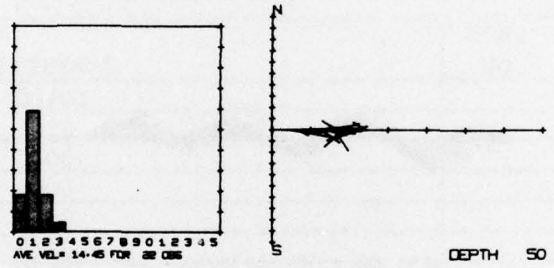
STATION 1047 61 4-0 -1 53-0



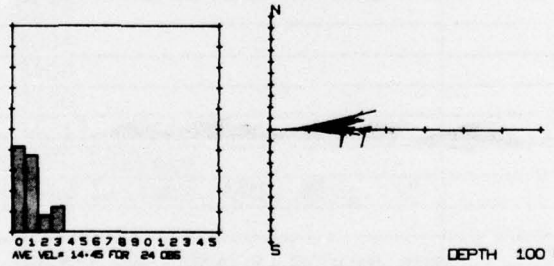
DEPTH 10 M VEL 5 CM/SEC TIME= 4 HRS/DIV



DEPTH 25 M VEL 5 CM/SEC TIME= 4 HRS/DIV

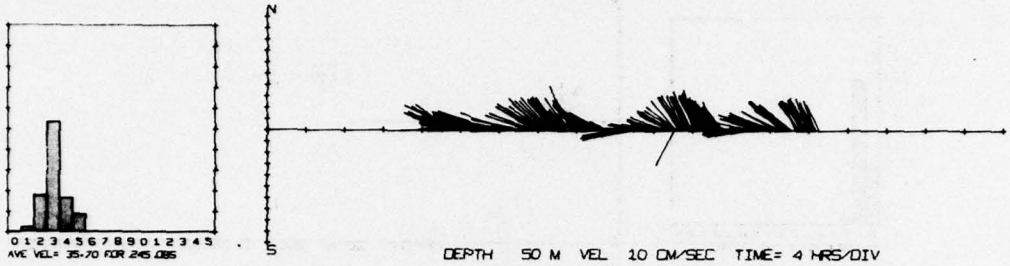


DEPTH 50 M VEL 5 CM/SEC TIME= 4 HRS/DIV

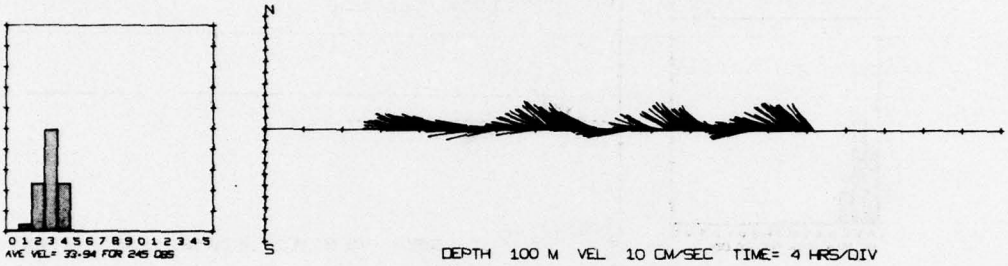


DEPTH 100 M VEL 5 CM/SEC TIME= 4 HRS/DIV

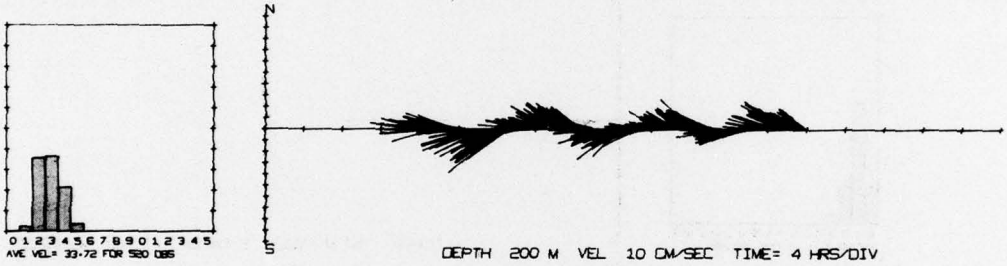
STATION 1048 61 9.0 -2 23.0



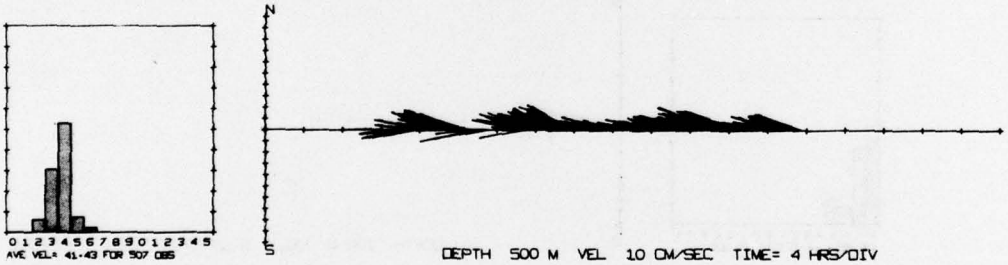
DEPTH 50 M VEL 10 CM/SEC TIME= 4 HRS/DIV



DEPTH 100 M VEL 10 CM/SEC TIME= 4 HRS/DIV



DEPTH 200 M VEL 10 CM/SEC TIME= 4 HRS/DIV



DEPTH 500 M VEL 10 CM/SEC TIME= 4 HRS/DIV

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